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This Is Not a 'Drill': Young People's Understandings of and Hopes for Sustainability Education in England

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Abstract: Global surveys show that young people are concerned about sustainability and climate change and how it will affect their future. Education for Sustainability is seen as a key approach that can equip young people with the knowledge, skills, and competencies to act for climate justice. Despite much policy attention on Education for Sustainable Development (ESD), this paper argues that current educational approaches inadequately prepare young people to understand and engage with climate change and sustainability issues. Drawing on a unique survey of 1655 young people in England, this study identifies significant knowledge gaps in understandings of sustainability concepts and a strong demand for educational reforms. Quantitative data reveal variations in sustainability understandings across age, gender, and income, while qualitative insights uncover young people's feelings about the gaps in their education, exposing their fears, anger, powerlessness, and hopes for change. This study highlights the dominance of consumer choice in young people's perceptions of sustainability, emphasizing the need to shift from individualistic to collective actions. This paper concludes with a call to integrate sustainability education into the English National Curriculum to promote holistic and action-oriented learning and create opportunities for nurturing hope through transformative education.

Keywords: climate change; consumption; curriculum reform; eco-anxiety; education for sustainable development (ESD); England; hope; income deprivation; policy; transformative education

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1. Introduction

This paper argues that mainstream climate change and sustainability education is insufficiently preparing young people to act on and understand climate change and sustainability issues. This claim echoes scholarship from within the academy, with authors drawing attention to the often individualistic and market-driven imperatives that shape sustainability education [1–5]—and beyond–with NGOs and think tanks highlighting the inadequacies in the English (and other national) Curriculum(s), and global youth-led calls for transformative education [6–8]. What this paper adds to this scholarship is an analysis of a unique survey of young people (aged 8–25) living or working in England (conducted for the SEEd Youth Listening Project), who have answered both quantitative and qualitative questions about their feelings towards, understandings of, and hopes for sustainability education. Previous studies that have used survey research in this field have generally either reported on global data and mostly quantitative indicators, with a limited ability to report on an individual national context [6,8]; or, they have drawn on a smaller sample of students, sometimes within an institution, and have reported on a range of quantitative and (occasionally) qualitative indicators [9–11]. This study, by contrast, presents data from a large sample (1655 young people) and foregrounds qualitative responses that offer rich insights into how young people think about these issues, and so prioritizes youth voice. Setting this within the English national context enables the author to connect these empirical insights with a deep understanding of the policy context, which has shaped how sustainability education is delivered. Therefore, this paper offers an important bridge

between critical scholarship on Education for Sustainable Development (ESD) and youth understandings of sustainability and climate justice issues.

The recent launch of the UNESCO Greening Curriculum Guidance [12] was in part motivated by several global surveys of young people who expressed dissatisfaction with how they were taught about climate change and sustainability issues [6,8]. This evidence, along with the Youth Declaration on Transforming Education [13], fed into the Greening Curriculum Guidance, which calls on curricula around the world to adopt a more action-oriented and justice-driven approach to climate change and sustainability education. Achieving the goal of 90 per cent of all countries including climate change in their curricula by 2030 will be challenging, given that benchmark studies show that less than half currently include climate change within their curricula and of these many do so minimally [14]. In England, (curriculum matters are a devolved issue in the UK; Scotland, Wales, and Northern Ireland have a better provision of ESD than England) where the data presented in this paper have been gathered from, there has been a patchy approach to the teaching of climate change and sustainability issues. There was no mention of sustainability in the National Curriculum when it was relaunched in 2013, though the Department for Education's recent policy strategy document for sustainability and climate change [15] does call on schools to teach students about the 'importance of sustainability' and 'the causes and impacts of climate change'. That is not to say that students were not taught about these issues prior to this point, but that there was no overarching strategy or centralized support, meaning it was up to dedicated teachers to introduce this content [16–18]. Students report learning about sustainability and climate change in school mainly in Geography and Science lessons, but their understanding often contains inaccuracies, and they have high levels of concern [19,20].

This paper first outlines academic debates about ESD, English sustainability educational policy, and youth attitudes to climate change, before introducing the SEEd Youth Listening Survey and its analysis. (Please note that 'ESD' is used throughout this paper for ease—though there are different terminologies used like Education for Sustainability, Climate Change Education and Environmental Education) The presentation of findings focuses around three pillars: understandings of sustainability, evaluation of existing learning, and feelings about/hopes for ESD. This paper presents both across-case and within-case analysis to illustrate the diversity of understandings, experiences, and feelings of respondents within this survey. The analysis draws attention to how frequently 'consumer choice' dominates young people's understanding of how they can act. This interacts with the generational divide to both disempower young people, as well as offer seeds of hope for change. In the discussion section, the analysis is brought into conversation with scholarship on critical sustainability education and eco-emotions to demonstrate this study's key contributions. This paper concludes by making the case for integrating sustainability education into the English National Curriculum to promote holistic and action-oriented learning, addressing cognitive, social, and emotional aspects of climate and sustainability education.

2. Existing Research on ESD, English Educational Policy, and Youth Climate Fears

This section is broken into four parts, the first reviews the existing research on ESD, and the enduring tension between teaching 'defined' behaviors versus developing critical sustainability action competencies. This tension is then explored in relation to the English policy context and its recent Sustainability and Climate Change Education Strategy. The third section considers how young people have responded to climate change and sustainability education, paying close attention to research on eco-anxieties and their potential for motivating sustainability actions. The final section offers a summary to orient the reader towards the analysis that follows.

2.1. Critical Sustainability Education

Education for Sustainable Development (ESD) was born from the established seeds of environmental education and global development education, which came together in the 1980s following the Brundtland Commission [21]. By 2015, the 17 Sustainable Development

Goals (SDGs) that call for action on interconnected global challenges concerning planetary protection, social welfare, poverty eradication, and peace were established. As part of SDG4 'Quality Education', Target 4.7 called for all learners to have access to ESD by 2030, centering the role education plays in promoting environmental consciousness and sustainable lifestyles. This ambition was supported by UNESCO's Decade of ESD (2005–2014), and their Global Action follow-on program, as well as various initiatives to share best practices and enhance global networks for sustainability education. In 2020, UNESCO launched its roadmap *ESD for 2030*, where it outlined five priority areas for action on ESD including integrating ESD into national education policies, promoting whole institution approaches to sustainability education and local forms of activism, as well as empowering young people to act on and influence sustainability issues [22]. Though UNESCO has championed ESD, there have been long-running concerns about how it has framed and promoted ESD and climate education [1,3,23–26]. The vagueness of 'sustainability' has been an enduring concern, as well as the absence of questions of power, political economy, anthropocentrism, and global citizenship from this reformist agenda. In their review of the Decade of ESD, Huckle and Wals argued ESD does little to 'challenge neo-liberalism as a hegemonic force blocking transitions towards genuine sustainability', and instead promotes 'shifts in [individual] values, lifestyles and policy' as sufficient to 'put global society on a sustainable path' [1] (p. 491). The economic underpinning of ESD found within the SDGs is deeply problematic, as economic growth is at odds with environmental protection and rights of nature, and ESD does little to highlight this contradiction. Instead, it is accused of maintaining the status quo through its promotion of individual behavior change and 'unreflective acceptance' of the SDGs [3].

Individual versus system change has been at heart of many critical discussions of societal transformation, and we find this echoed in the ESD debate between Marxist humanist-inspired scholars such as [26] and the policy framing of ESD. For some, there is a middle ground between the two broad approaches, often referred to as ESD1—the instrumental promotion of informed defined behaviors and values; and ESD2—the transformative or intrinsic process of learning that builds capacity to think critically about sustainable living [27]. Both these approaches are argued to be complementary as too much of the first 'reduces learners' capacity to think and act for themselves', and too much of the second may be 'ethically bereft' and 'prone to relativism' [28] (p. 40). Much of this discussion is mirrored in Climate Change Education research with emphasis placed on 'learning the science' over engaging with young people about the 'scientific, social, ethical and political complexities of climate change' [29] (p. 191). There has been a shift in recent years towards developing 'sustainability competencies' in learners—e.g., systems, critical, and futures thinking, as well as problem solving and strategic thinking/collaboration-to achieve both types of ESD, through action-oriented and transformative pedagogies [2,30–32]. Such a turn in part addresses Kahn's call for critical eco-pedagogies [25], but there remains a focus on individual transformation through the 'bio-political governance' of learner conduct rather a radical transformation of structures of power within our society [23].

2.2. English Policy Context

In England, where the data analyzed in this paper were gathered, there has been a 'patchy' approach to integrating ESD within formal education [18]. This is not uncommon and UNESCO's own research shows that the countries that have been most successful in integrating ESD and Climate Change Education have been those most vulnerable to climate change impacts [14]. But even then, of the 100 National Curriculum contexts studied, 47% made no reference to climate change and of those that did, the depth of inclusion was often minimal. Whilst there are places that have made important strides by embedding ESD within national legal frameworks, like Italy, Indonesia, and Colombia [14], England sits far behind these with no references to sustainability within its National Curriculum [18]. It is important to be mindful of the history of ESD within England when analyzing what young people within this system think of their education.

In their reviews of the development of ESD and Climate Change Education in England since the 1970s, Greer et al. and Glackin and King find these issues have been under-represented, with successive governments failing to fully fund or assign centralized responsibility for this education [16,33]. The authors maintain that when education was present, economic framings dominated and the learning of key facts *about* (rather than *for*) were prioritized (e.g., ESD1). The neo-liberal reform of the English education system [34] does not foreground sustainability or climate change, pushing these issues to the margins of education governance and standards. Recently, ESD and Climate Change Education have been integrated through the 2022 Strategy document released by the Conservative government [15]. This represented a change of policy direction after years of systematically removing references to sustainability and climate change, such as when the Coalition government ceased funding for the National Framework for Sustainable Schools in 2010. International policies (like UNESCO's ESD policies and climate change agreements), as well as youth-led 'school strikes for climate', no doubt provided the impetus for the 2022 Strategy document, which does represent a step-forward with an institutional sponsor now charged to deliver it and recognition of the importance of these issues. However, in their review of this strategy, Dunlop and Ruston maintain it symbolizes a 'cosmetic rather than fundamental change' because it continues to foreground the economic framing of ESD (green careers and the net zero agenda), and depoliticizes these issues because of fears around impartiality in the teaching of 'political' issues [35] (p. 16). Echoing UNESCO's finding that teachers globally feel unprepared to educate for action for sustainability and climate change [14], Dunlop and Rushton note that the English Strategy emphasizes 'knowledge not action, *feeling* rather than *being* empowered and [the] presentation of actions as choices' [35] (p. 16). The consequence of which is responsibility for sustainability and climate change is placed onto educators and ultimately young people rather than leaders and government.

2.3. Young People's Attitudes towards and Fears about Climate Change

Young people are increasingly aware of the impact of climate change and sustainability on their futures, as the 'Fridays for the Future' school strikes attest, as well as a growing scholarship on climate anxieties [36–41]. On the one hand, young people are made to feel responsible, often in their capacity as individual consumers, for climate change through messages within educational resources [4,5] and policies like the English Strategy; at the same time, their capacity to act is limited by their generational position within society [36,42]. In the first major international study of climate anxiety and attitudes, Hickman et al. revealed high levels of climate anxiety across youth populations globally [39]. Though UK respondents exhibited lower levels of concern than young people in countries more vulnerable to climate events (like the Philippines, India, and Portugal), they still reported high levels of concern, which affected their daily life and ability to function. Negative emotions were more frequently reported than optimistic emotions and levels of climate anxiety were exacerbated by perceived government inaction. In a large focus group-based study of attitudes to climate change in English schools, these finding were replicated with young people reporting negative emotions and fear about their future more frequently than hopeful visions [41]. In a smaller qualitative study about responses to climate education with young people in Australia (representing a similar ESD context to England, with limited government support and an active civil society pushing for ESD integration into the curriculum [43]), Jones and Davidson found that young people felt betrayed, afraid, disempowered, and 'stranded by the generation gap' [36]. Their participants voiced their desire to have a space for their emotions about climate change to be heard, and to collectively learn from and through them. Together these findings are in line with growing scholarship, which has found that (a) climate anxiety can negatively impact mental health [44,45], and that (b) eco-anxieties may be productive for motivating constructive action and hope [41,46,47].

The English Strategy [15] and earlier UNESCO guidance [22] have been quiet about the field of emotions and climate anxieties, which increasingly shape young people's responses to sustainability education [35,36,38,40,41,48]. Ojala has variously studied emotions and Climate Change Education and advocates for the importance of listening to these emotions, as well as highlighting how hope can mitigate negative emotions [37,40,48]. In a comprehensive review of eco-anxiety and environmental education, Pihkala emphasizes the crucial role of educators in addressing eco-anxiety by fostering discussions about eco-emotions and guiding these feelings toward collective action [38]. Though the ESD literature has been slow to recognize and integrate emotional responses into educational models, UNESCO's latest guidance does encourage educators to build resilience and coping strategies for climate anxieties into their teaching [12]. There are also attempts to meaningfully engage youth voices in the development of policies (such as in [13]) and calls from different NGO and academic circles for an approach to education that centers children's voices and agency [2,6,7,29]. In England, sustainability and Climate Change Education does not have a plan for this type of youth-centered listening.

2.4. Summary

What the reader should take from the discussion above is (i) what ESD is or should be about is widely debated, i.e., whether this is the environment or the interconnected spheres of social, economic, and environmental justice; (ii) there is an enduring tension between the dominant approach to ESD that promotes individual actions and responsible behaviors (often in the sphere of personal consumption), and ESD that develops critical competencies within learners that enable them to take actions for sustainability beyond the individual level; (iii) English educational policy has not prioritized learning ESD within the formal curriculum, and where it has been discussed in recent strategy, ESD1 has dominated over more competency or action-led models of learning; and (iv) levels of eco-anxiety are high amongst young people across the globe and more needs to be done to make space for young people's voices and emotions about climate change and sustainability and to channel these towards constructive actions. It was in this spirit that the SEEd Youth Listening Survey was established to give young people a space to have their understandings and critiques of sustainability education heard (the idea for the SEEd Youth Listening Survey came from youth-led workshops run by Rachael Hill. The first survey was distributed in 2018 and the report was written by Racheal and Ann Finlayson (CEO of SEEd) [49]).

3. Materials and Methods

The data reported in this paper were gathered through an online survey (on the SurveyMonkey platform), which was available between September 2021 and July 2023. The survey questions were designed by the Sustainability and Environmental Education Charity (SEEd), with assistance from the author. The survey contained 20 questions, most of which were developed through youth focus groups, where terminology was chosen by young people themselves. The survey was principally designed to inform the delivery of the SEEd Youth Changemaker program rather than for academic purposes. Six of the questions were qualitative open-ended questions in keeping with the spirit of *listening* to young people. The survey probed respondents on their levels of (1) understanding of sustainability and related terms, (2) imagined futures, (3) possibilities for acting on sustainability, and (4) how they learn and what they would like to be taught about sustainability issues. Information was also collected on age, gender, country, and the name of their school (if applicable). Given space constraints, this paper focuses on the survey Sections 1 and 4 only (see [50] for an overview of the whole survey), as well as socio-demographic variables (see analysis section and Appendix A for more details of variables used in the analysis for this paper and the questions asked).

3.1. Method

Online surveys have become popular in recent years, with online providers like SurveyMonkey and Qualtrics making survey research accessible to a range of organizations [51]. They are fast becoming the dominant mode of survey data collection [52]. Web surveys allow for the self-completion of survey questions by participants, potentially minimizing survey bias over surveys conducted face-to-face. Online surveys have opened the possibilities for the full inclusion and analysis of open-ended questions, something that was less common in face-to-face surveys where the interviewer wrote down partial and often poor participant responses [53]. The potential of using open-ended questions to gather rich qualitative data that capture a wide diversity of understandings is recognized [54], though analysis of large samples remains challenging. The depth of the data generated is 'thinner' than would be gathered through other qualitative methods, like interviews, focus groups, or ethnographic observations. Often respondents' answers comprise just a small number of words or a sentence, which needs to be balanced against the large sample size possible through surveys as well as the possibility of mapping qualitative answers to other quantitative indicators (like socio-demographic variables or attitudes). The qualitative survey, though underused, can provide depth and richness when considered as a whole, even if individual responses are brief [54]. As Rädiker and Kukartz maintain, analysis of open-ended questions requires both within-case and across-case comparison to gain insights comparable to other qualitative methods, like interviews [55].

3.2. Sample

The target population for the survey was young people in the English education system and SEEd publicized the survey to schools across the country. Often schools approached SEEd to ask for the link to the survey and schools then promoted the survey as part of their learning activities on sustainability. Over 1700 responses were received, of which 1655 were completed by respondents living or working within the UK. Table 1 shows the socio-demographic characteristics of the sample. Most respondents were of secondary school age (e.g., Key Stage level 3 and 4), and around 70% provided the name of their school. The postcode of the school was linked to the English Indices of Deprivation [56] and the Income Deprivation Index. This measure gives an indication of levels of relative income deprivation in the area where respondents attend school. Of course, there are limits with this measure as not all young people attend a school local to them, but it is used as a proxy for deprivation in lieu of any other income or social class data in the survey.

Table 1. Socio-demographic characteristics of the sample.

Socio-Demographic Characteristics	N	Valid Percentage	Percentage (Includes Missing Data)
Gender			
Male	622	41.1	37.6
Female	833	55	50.3
Non-binary	59	3.9	3.6
Age			
Up to 11 years	219	14.4	13.2
12–13 years	502	32.9	30.3
14–15 years	354	23.2	21.4
16–17 years	324	21.3	19.6
18 and older	125	8.2	7.6
Income Deprivation Index, using school postcode			
Low-income area (Deciles 1–4) (most deprived)	405	34.6	24.5
Mid-income area (Deciles 5–7)	391	33.4	23.6
High-income area (Deciles 8–10) (least deprived)	373	31.9	22.5
No information on school	486	-	29.4
Total	1655		100

The SEEd survey achieved a high engagement rate with the majority of participants answering most questions on the survey (including the qualitative ones). Sample sizes of over 1100 are generally considered to produce less sampling errors, leading to greater confidence in the conclusions drawn [57], but as this was a non-probability sample it is not possible to claim representativeness. Online surveys do carry selection bias because only those with access to the internet can participate and there is no way to know the identity of the respondents. However, these factors were minimized because the survey was often completed in a school setting, with 70% of survey respondents providing their school's name. But it is likely those who participated attended schools with an interest in sustainability, so the answers analyzed cannot represent all pupils across the English education system, given the limited space within the National Curriculum for sustainability and Climate Change Education. Nevertheless, this survey offers a diverse and large enough sample to provide insights into views on sustainability education amongst students likely to have experienced some schooling on this topic.

3.3. Research Ethics

Participation in the survey was voluntary and respondents were asked for their consent for the data gathered to be used in research reports before they started the survey. The survey text made clear there was no obligation to answer any/all questions. As a secondary user of already-collected data, my key responsibility was to ensure that no individuals could be identified through my analysis and so no school names appear in this report. The analysis of this survey data was approved by the University of Essex Ethics Committee in October 2023.

3.4. Analysis

The data were carefully checked and formatted for analysis within SPSS (version 29) and MAXQDA (version 24). Given the nature of the data collected in this non-probability sample, an advanced statistical analysis is not possible. So instead, basic descriptive analyses, through frequency tables and cross-tabulations, are used to describe the key patterns. This paper concentrates on four of the qualitative open-ended questions and a series of closed questions about understandings of sustainability and related concepts, and opinions of/hopes for sustainability education in their schooling/learning (see Appendix A for the list of questions asked).

The open-ended questions were labor intensive to analyze, and the process was assisted by the CAQDAS (Computer-assisted Qualitative Data analysis Software) package, MAXQDA 24. Fielding et al. highlight how CAQDAS packages support the systematic analysis of open-ended survey questions [53]. They allow the researcher to group responses by categories or underlying participant characteristics and view the data both within and across cases, as well as use auto-coding for frequently used words and phrases. I used a combination of qualitative content analysis to sort responses into mutually exclusive categories, and a thematic analysis to organize other data by key themes [58]. As I was working alone, the reliability of my coding was checked by repeating coding on a different day to ensure reliability within the coder (see [59]) and using the AI Assist feature in MAXQDA (see below) to offer a second opinion on codes developed. Analysis should be conducted both across-case (as is more common for a quantitative survey analysis) and within-case to explore how a selection of respondents replied to multiple questions [55]. A purposive sample of 30 cases, reflecting socio-demographic and response diversity, was used for the within-case analysis, and all other responses were explored across the whole sample.

One of the newest features of MAXQDA 24 is the incorporation of generative AI technologies, which can be used to assist analysis. The AI Assist feature uses Open.AI technology to process a deterministic sample of data. It does not do your coding for you but can help summarize key ideas within large datasets and offer a useful 'second opinion' on already-coded data. There is an active debate about what such technology will mean for qualitative analysis, with some authors claiming it performs as well as human analysis

particularly for survey data [60], whilst others suggest more caution is required when dealing with interpretive data [61]. In analyzing data in the survey, I have made active use of the summary feature to aid my familiarization with open-ended responses, and to check that key coding ideas were also recognized by the technology. This feature can offer a helpful snapshot of key ideas present across multiple responses but cannot pull out nuances across cases, which continues to require the human analyst. Where AI summaries appear in this article, this is fairly attributed to AI Assist. For a full discussion of key considerations when using AI to assist analysis, see Wheeler [62].

4. Results

This section is divided into three main parts; first, I discuss how young people understand the term sustainability and how their understanding of key sustainability terms varies by socio-demographic characteristics. Second, I look at what young people report learning about sustainability and what they think of these learning experiences. Finally, I undertake a within-case analysis of thirty respondents to illustrate the strength and diversity of emotional responses to these issues.

4.1. Understandings of Sustainability

Respondents were asked to provide their definitions of 'sustainability'. Figure 1 gives a snapshot of the most frequently used words across all answers to the question, 'What is the first thing you think of if I say 'Sustainability?''. 'Environment' was the most used word within 223 responses (around 15% of answers), with 'future', 'things', and 'resources' also featuring prominently.

Figure 1. Word cloud of the 50 top words from answers to the question 'What is the first thing you think of if I say 'Sustainability?''.

The following summary of responses captures how answers tended to focus on environmentally responsible behaviors, like sustainable lifestyles or consumer actions (e.g., recycling and using resources wisely):

> *'When asked about sustainability, most people think about the environment and ways to reduce waste, use renewable resources, and be eco-friendly. Preserving resources for future generations and creating a better future for the planet are also important themes. Recycling, renewable energy, and sustainable living are commonly mentioned. Additionally, some people emphasize the need for balance and meeting present needs without compromising the needs of the future.'*
>
> (summary of responses generated by MAXQDA 24 AI Assist)

Close qualitative coding of the responses (see Table A1 in Appendix B and Figure 2) revealed that though environmental definitions and ideas of resource stewardship were prominent, more definitions for sustainability were vague, with many one-word answers (as is often the case with open-ended survey questions, there were many one-word answers to this question (400 out of 1590 people who answered the question) and some of these were

just 'environment' or 'recycling') and responses that talked about longevity or maintenance without attention to environmental, economic, or social dimensions. In keeping with critical scholarship on the type of knowledge ESD promotes [1,3], many respondents were either unsure about what sustainability was or thought about it in terms of defined consumer behaviors (e.g., ESD1). Only a handful of respondents drew attention to interdependencies of social, natural, and political economic worlds.

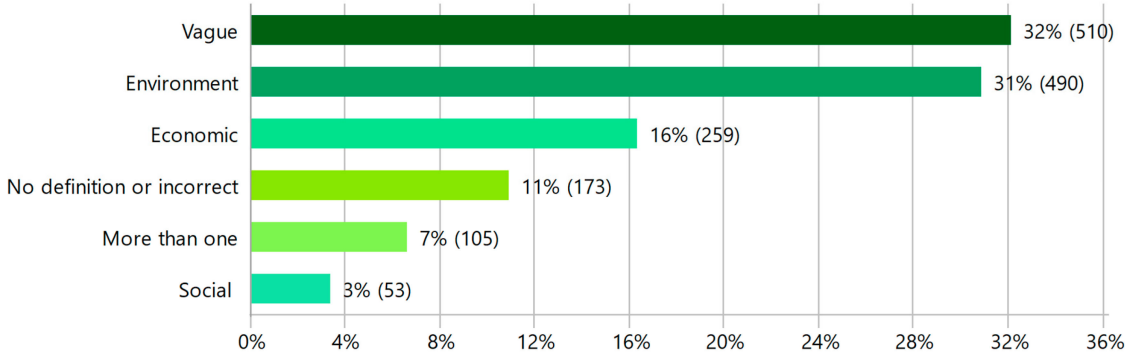

Figure 2. Qualitative coding of Definitions of Sustainability (each response was coded into one of these categories only (e.g., mutual exclusivity), for definitions of each category see Table A1 (Appendix B)).

The finding that young people tend not to connect environmental dimensions with other economic and socio-cultural systems is further demonstrated when they were asked to rate their top three environmental concerns from a list of 12 (see Figure 3). Pollution and littering, deforestation, and fossil fuels were identified most frequently, whereas changing business operations was rated as the least important alongside food and farming, transport emissions, and changing people's behavior. One sustainability expert told me that pollution was the term used by Primary school teachers to cover climate change and emissions when 'climate change' was not allowed in the curriculum until A Level (GCSE inclusion came a few years later); therefore, the prominence of 'pollution' in young people's concerns may reflect earlier schooling on the broader issues. The survey also asked young people to rate key sustainability issues using a simplified list of the SDGs, to indicate which issues they felt were most and least important. Interestingly, and in contrast to fears that ESD maintains the status quo by promoting a 'business as usual' approach, we see that young people rated economic growth as the least important priority, whilst climate change and protecting nature were seen as the most important (Table 2). But as in the first question, issues related to the environment were prioritized over social and economic goals. These findings raise important questions about the focus of teaching and learning in relation to sustainability, and add further support for the claim that young people are often taught about selective issues (like recycling and the science of emissions) rather than systems thinking that connects big issues to political structures of influence [1,3,5].

Table 2. Rating of most and least important sustainability issues (scale of 1 to 8).

Priority	Sustainable Development Goal	Mean Score
Most important	Climate change	2.54
	Protecting nature and the environment	3.68
	No poverty	3.75
	Reduced inequalities	4.27
	No hunger	4.44
	Good health and wellbeing	4.77
	Responsible production and use of resources	5.41
Least important	Good jobs and economic growth	6.37

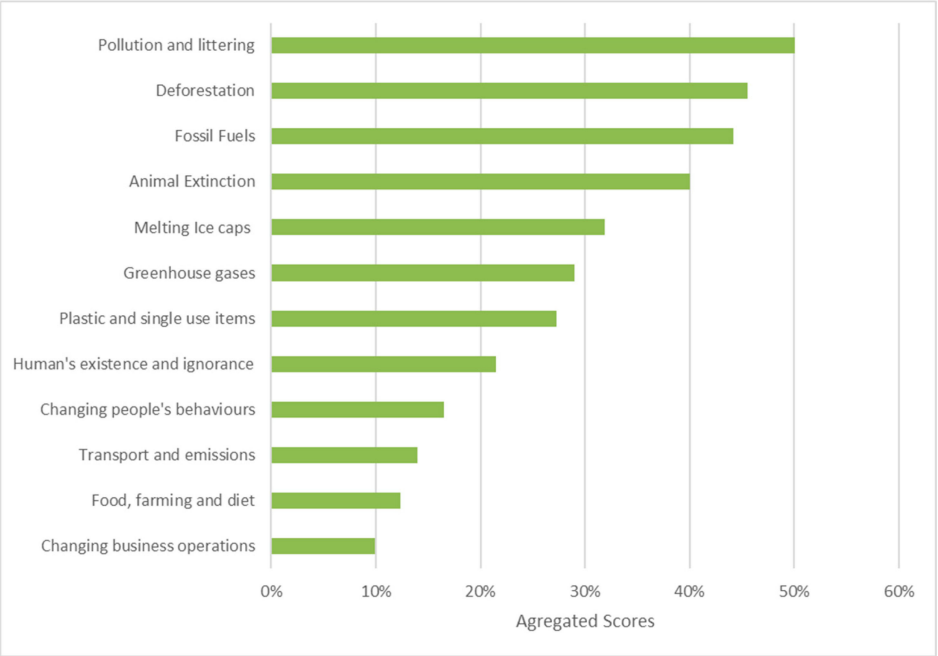

Figure 3. Young people's top three environmental concerns.

Levels of understanding of key sustainability terms varied (see Figure 4), with some terms (Nature, Climate Change, Gender Equality, and Fair trade) being understood by most respondents, whilst over 80% of respondents had not heard of, or were unsure of the meaning of, other terms (Circular Economy, Green Economics, and Ethical Investment). 'Net zero', which means balancing the amount of greenhouse gases emitted and removed from the atmosphere to achieve no net increase in emissions, has become a key policy term since the Paris Agreement in 2015 and has been embedded in many UK policies, including a legal commitment to reach net zero by 2050 in 2019. 'Net zero' has not been heard of or is not well understood by two thirds of respondents. This is in keeping with recent research by the Co-op [63], which found just a third of 16–24 year olds knew what 'net zero' meant. Importantly, there are variations in the levels of understanding of key terms by gender, age, and income level. Table 3 shows how understanding of net zero varied by socio-demographic characteristics.

Table 3. Crosstabulation of 'understanding of 'net zero' by gender, age, and area income deprivation (row percentages).

	I Have Never Heard of This	Yes, I Have Heard of It But Am Unsure What It Means	Yes I Understand What This Means	Total
Gender	32% (470)	33.5% (492)	34.5% (507)	1469
Male	31.1%	30.6%	38.4%	599
Female	33.1%	35.8%	31.1%	813
Non-binary	26.3%	31.6%	42.1%	57
Chi square (df)		X^2 = 10.223 (4) *		
Age	31.9% (472)	33.4% (494)	34.6% (512)	1478
Up to 11 years	43.7%	34.5%	21.8%	206
12–13 years	44.7%	33.5%	21.8%	481
14–15 years	25.9%	36.5%	37.6%	348
16–17 years	16.6%	31.3%	52.0%	319
18 and older	19.4%	28.2%	52.4%	124
Chi Square (df)		X^2 = *142.138 (8)* ***		
Income Deprivation Index, using school postcode	32% (366)	33.3% (381)	(34.8%) 398	1145
Lower-income area	44.8%	31.7%	23.5%	391
Mid-income area	25.1%	32.2%	42.7%	382
High -income area	25.5%	36.0%	38.4%	372
Chi Square (df)		X^2 = *54.182 (4)* ***		

* $p < 0.05$, *** $p < 0.001$, shaded cells indicate where adjusted residual is greater +/−1.96.

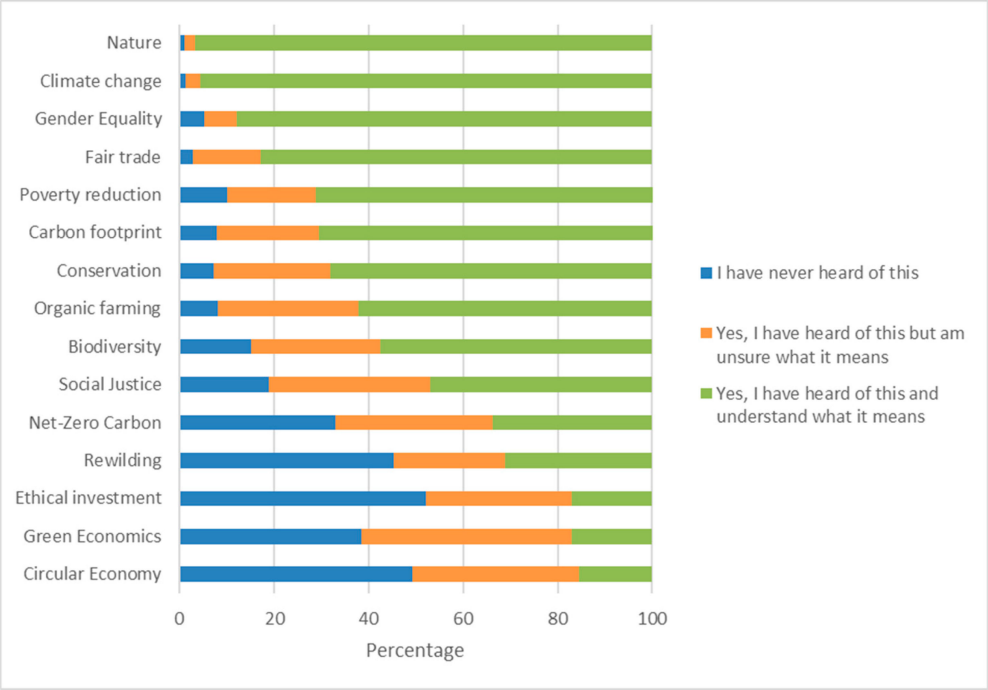

Figure 4. Understanding of key sustainability terms.

Many trends represented in Table 3 are replicated for other key terms. Male respondents were slightly more likely to report knowing and understanding the terms net zero, circular economy, and green economics. On the other hand, female respondents reported knowing and understanding the terms fair trade, organic farming, social justice, and gender equity more frequently than male respondents. Levels of awareness are increasing as students progress through the educational system, with the youngest age groups (up to age 11) more likely to report not having heard of the terms, whereas those in older age groups (particularly those aged 16–17) were more aware. This suggests that young people are learning about more complex sustainability concepts as they move through their secondary educational years. However, students attending schools in areas with greater levels of income deprivation are more likely to report not knowing key sustainability terms, whereas those living in more affluent areas were more likely to report knowing and understanding these terms, with high levels of association for the terms 'Conservation' (X^2 = 85.137 (4) ***), 'Carbon Footprint' (X^2 = 63.937 (4) ***), 'Poverty reduction' (X^2 = 58.615 (4) ***), and 'Biodiversity' (X^2 = 35.663 (4) ***) (these associations hold when crosstabs are layered by age, though this is not the case for the youngest (under 11) and oldest age categories (but for the 18+ category, chi-square association violates the 5-cell minimum assumption)).

As sustainability education is not a core part of the National Curriculum in England, it is likely to have been taught through extra-curricular activities and evidence shows that those from disadvantaged backgrounds are less likely to have the opportunity to engage with such activities [64]. Policies to address educational inequalities in the UK have done little to close the gap between income groups over the years [34]. If sustainability education is aimed to develop future leaders and changemakers (as UNESCO materials suggest), then restricting access to those from higher income backgrounds will further entrench social inequalities, as lower income students will lack key competencies and knowledge relative to their more affluent peers.

4.2. Evaluation of Existing Learning

Having looked at how young people understand key sustainability terms and how this varies by socio-demographic characteristics, this next section explores how young people evaluate their existing learning about these issues. We will see that young people

report a range of learning experiences but there is an overwhelming desire to learn more about *how* they can help.

The survey asked young people where they had learnt about sustainability and climate change, and most (73%) indicated they had learned about it within a school Geography class, where the National Curriculum specifies that 'climate and human activity' are addressed. This supports existing findings that sustainability and climate change tend to be siloed in Geography and Science classes rather than embedded throughout the curriculum [7]. After Geography classes, social media (61%) and television (59%) were the most cited sources (see Figure 5). Just 4% of participants said they had not learned about it at all, though answers to the qualitative questions (explored in Section 4.3) reveal high numbers report they 'don't know' what they have been taught (see Table 4).

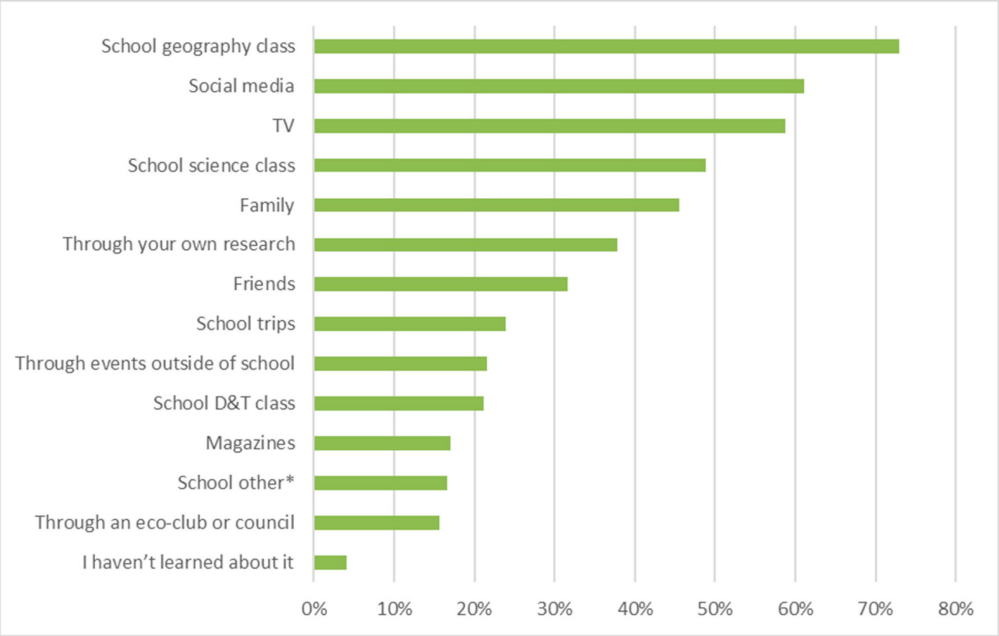

Figure 5. Where have they learned about sustainability and climate change (* school other includes assemblies, specific teachers, other curriculum studies (like PHSE) and Primary school).

Social media was a popular source of information, whose use increased with age, with 75% of 16–17-year-olds reporting learning about these issues from this source. Though young people had a limited amount to say about social media in their qualitative answers (they were not directly asked about this), the finding that social media is an important source of information about sustainability and climate change is reflected in other studies [65]. However, social media was the source least trusted by young people (see Figure 6). Teachers and experts on the other hand were highly trusted as sources of information on these issues, though those living in lower income areas trusted them slightly less than those living in higher income areas. This suggests that were there more compulsory education provided on this topic, young people would be receptive to it.

Table 4. Qualitative coding of the question 'What do you think you are being taught about sustainability?'.

Coding Category	Key Coding Criteria	Sample	N (%) *
1. Definitions of Sustainability			
The economy (resource preservation + individual behavior change)	Resource-use, energy saving, carbon footprint, net zero, as well as any responses that reference individual behavioral change through the market	*'I think that I have learnt that you have to use different sources carefully and fairly. You should also use renewable energy.'* (Female, aged 10, low-income area.)	380 (30%)
The environment	'Environment', saving animals/the planet, trees, nature, pollution, and climate change	*'I have learnt to treat my environment with care. Not to contribute to climate change.'* (Male, aged 12, high-income area.)	315 (25%)
Inequality and fairness	Generational justice, fairness, and caring for developing countries	*'How to become more sustainable as well as the injustices and problems caused by not caring for the planet enough, especially with those in vulnerable areas.'* (Male, aged 17.)	83 (6%)
2. Change			
The need for change	Often undefined statements about the need to change things, using 'we' as the common term	*'That we need to make a change in the world before it is too late.'* (Female, aged 13, high-income area.)	189 (15%)
Individual behavioral change	How to recycle, change household behavior, drive less, reduce plastic and reuse materials, and eschew consumerism	*'What can be done to make sure that things are re used and not using plastic where it is unnecessary to be used.'* (Male age 17, low-income area.)	298 (24%)
3. Learning the facts			
Science of sustainability	Learning the facts of emissions, greenhouse gases, and deforestation often in relation to Geography or Science classes	*'How to make scientific processes more sustainable, how carbon emissions affect the environment.'* (Female, age 17, mid-income area.)	153 (12%)
That it is important	They are aware it is taught and that it is an important topic	*'That it is important. It keeps the world going and helps keep other people in the world happy and safe.'* (Male, age 12, high-income area.)	121 (10%)
4. Not taught enough	Wanting more from their education, expressing dissatisfaction with limited practical guidance	*'Not a lot. We are only really taught about why an unsustainable way of life is bad, not how to achieve sustainability.'* (Female, aged 16, mid-income area.)	127 (10%)
5. Do not know or nothing	Does not understand sustainability or has given a short answer that is hard to code above	*'Haven't been taught a lot about sustainability.'* (Male, aged 19, mid-income area.)	246 (19%)
Respondents			1267

* Some responses were coded more than once to the different categories, so the overall percentages do not sum to 100.

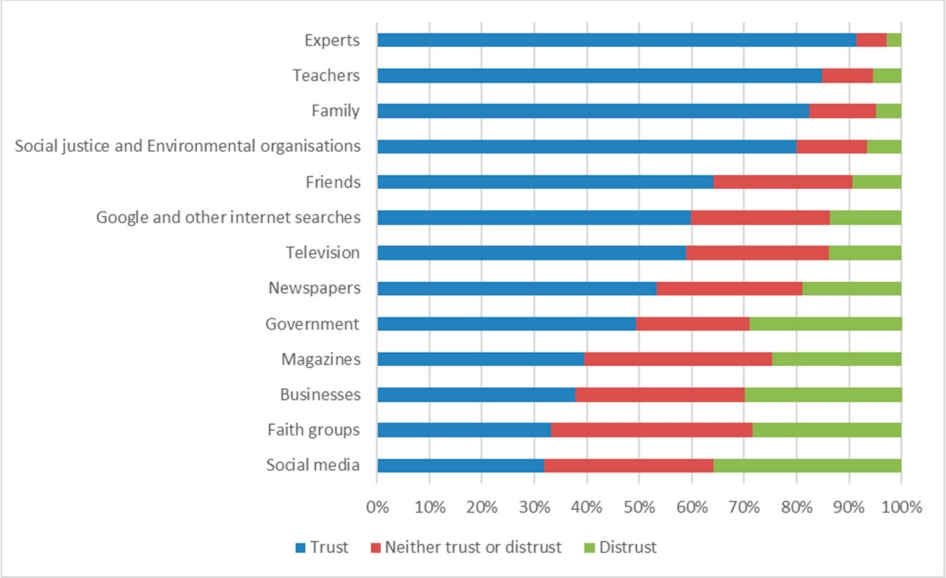

Figure 6. What sources young people trust to teach them about sustainability and climate change.

When asked what they had been taught about sustainability and climate change, responses have been broadly clustered around five key themes (Definitions of Sustainability; Change; Learning the Facts; Not taught enough; Do not know), with answers often touching on more than one of these themes (see Table 4). First, following on from the earlier qualitative question, many participants described how they were taught that sustainability is either about environment, economy (resource preservation and consumer behavior), or inequality and fairness (though it should be noted that the question they were asked defined sustainability as 'things that contribute to creating a fair and just world living within the Earth's resources', so this may account for the number of answers that included these terms). Interestingly, we see that though environmental messages were prominent, many young people report learning about the economy (in this case resource preservation and sustainable consumption) more frequently than facts about the environment. This is in keeping with Dunlop and Rushton's observation that economic messages dominate teaching on the environment and climate change in the English curriculum [35]. We also see this reflected in the ways the necessity for 'change' is communicated to young people in the second set of responses. The 'change' category captures how young people are taught change is necessary, i.e., whether global systems change or change to their own personal consumption or household behavior. Individual behavioral change accounts for the most frequent coding category in these responses, which highlights how ESD1 [27]—or the instrumental promotion of informed behaviors (usually within the marketplace)—dominates the educational messages that young people receive on this topic. Third were those responses that stressed how they were taught the importance of sustainability and climate change, whether this was the science of emissions or a sense of urgency that this is a big issue in society that needs to be addressed. Running through these responses was a sense that they were taught the facts but not anything about how they could effect change. This closely relates to the fourth set of responses, which expressed frustration with what they were taught because it was not taken seriously enough, or they were not given practical guidance about how to make change happen. Finally, around 20% of respondents stated they did not think they were taught about these issues, or they did not know what they had been taught, which contrasts to the earlier quantitative question, which found only a small number (4%) had not received any education on this topic. This may be a result of the open-ended question format limiting what respondents were willing to contribute or a genuine feeling that despite receiving some education on the topics, they still felt they knew little about it.

The frustrations expressed in the question about what they were taught were amplified in the question that asked, 'what they would *like* to be taught'. It was striking how many answers included the word 'how' (see Figure 7). Indeed, the top four words in responses to this question were 'how' (present in 43% of answers), 'what' (13%), 'help' (12%), and 'do' (10%). Many young people want to know 'how they can help' and 'what they can do' to address sustainability problems and have asked for education that offers practical actionable guidance on these issues. In line with UNESCO Greening Curriculum Guidance [12], young people asked for more action-oriented education on this issue, which is a far cry from what they are currently exposed to [16,33,35].

Figure 7. Word cloud of the 50 top words 'What would you like to be taught that would help you live sustainably?'.

Though the largest category for coding was a general plea for guidance around how to act, what to do, and how to be sustainable (close to 50% of answers), this was often coupled with the next dominant category of responses, which asked for help to 'live sustainably' (31% of answers) (this may have been shaped by the question asked, which included the phrase 'live sustainably'). Sustainable consumption and knowing which businesses to support were the most requested types of teaching in this category, and indicative of the types of responses received was the following statement:

> *'how to be more sustainable in every day life, like how to see whether certain products of food/cosmetic are responsibly sourced.'*
>
> (Female, aged 13, high-income area.)

Despite many critical educators wanting to promote active approaches to teaching that center student-led learning to develop core competencies like critical thinking skills and awareness of power structures, instead many respondents asked for more information about how to be a responsible consumer. This is no doubt a reflection of how messaging within broader neo-liberal UK society has responsibilized consumers and told citizens that the most effective ways they can act are through the market. Echoing concerns from critical ESD and sustainable consumption scholars [1,3,66,67], we see that young people's imaginations are 'thin' when it comes to enacting change within society. Though there were some requests for information about how political systems work and more active teaching approaches, these were only present in a handful of answers, e.g.,

> *'I would also like to know how I can have a voice in what policies are passed at parliament and what impact both government petitions and young voices have on these decisions.'*
>
> (Non-binary, aged 16, mid-income area.)

> *'Resources and different way to deal with situations and small standing up activities around to room to learn more.'*
>
> (Female, aged 13, low-income area.)

That said, there is evidence that consumption can provide a 'way-in' to broader political forms of activism, as consumers take on their role as citizens in partnership with others [68,69]. But enacting politics through the market has its problems and there was skepticism about the power of the individual consumer to make a difference (explored more through the within-case analysis in Section 4.3). Two important issues are raised by respondents that echo Walker's [42] plea to recognize differences when promoting sustainable behaviors in the classroom. The first issue was around generational power and a call for child-specific solutions, e.g.,

> *'How to live sustainably for a child for example we don't deal with house maintenance so we can't exactly help that be carbon neutral so how can kids make a difference?'*
>
> (Female, aged 13, mid-income area.)

By focusing on sustainable household behaviors, young people can feel excluded or disempowered because they are unable to influence their parents'/carers' actions. Many resources designed to teach young people about sustainability concentrate on things young people are unlikely to do (certainly those at the lower ages ranges), like washing clothes, driving, or using renewable energy (see [5] for an overview of the content of sustainability resources). Presenting sustainability as a choice in the market is also problematic for a second reason: those without income are excluded from these 'valued' behaviors. This is closely related to generational power, as young people tend to have less economic capital, but it is also related to income inequality.

> *'small ways that you can live sustainably in every day life without it costing more.'*
>
> (Female, 16, low-income area.)

> *'how to be sustainable, but not be forced to think that the globe is heating up because of our actions.'*
>
> (Male, aged 14, low-income area.)

As Dunlop and Rushton drew attention to in their review of the English Climate Change and Sustainability Education Strategy, by presenting actions as choices, young people are ultimately made responsible for change rather than governments and political–economic systems [35]. But many of these 'choices' carry additional financial or time burdens, which can be unavailable to young people and those from more deprived areas. Equating individual actions with influence can also lead to difficult emotions and feelings of powerlessness. The challenge is then to provide space for these more difficult emotions to be expressed and opportunities for young people to collectively feel they can make a difference through educational interventions [29,36,38].

4.3. Feelings about and Hopes for Sustainability Education

In the final empirical section of this paper, I turn to these more difficult emotions and seeds of optimism, which young people expressed in their varied answers to this survey. Analyzing answers across cases gives a sense of the breadth and diversity of issues and this is the most common way of analyzing survey questions. But qualitative analysis ought to also explore how respondents are making sense of and connecting their answers [55]. The SEEd survey was designed to listen to young people, and I felt when coding single question responses that strong emotions and contradictory feelings often ran through multiple questions and categories of responses. I argue the best way to 'listen' to these feelings is through a within-case analysis. I purposively selected a sub-sample of 30 cases that demonstrated these feelings and considered broader socio-demographic characteristics to ensure this sub-sample reflected the sample population (these cases were selected purposively as I coded other responses, which more-or-less reflect the sample make-up in terms of demographics (15 females, 14 males, and 1 non-binary individual), age (3 aged under 11, 7 aged 12-13, 8 aged 14–15, 10 aged 16–17, and 2 aged over 18), and the income-level of area (4 missing, 8 low-income, 8 mid-income, and 10 high-income)). The purpose of this part of the analysis is not to quantify but to hold onto how understandings,

experiences, feelings, and hopes for Education for Sustainability connect within different cases. This sub-sample represents respondents who gave at least two reasonably full answers to the qualitative questions and so does not reflect those participants who gave one-word answers across the whole survey (it is hard to pull out qualitative insights from one-word answers, which may reflect apathy about the issues, a lack of interest in the survey, or an inability to express themselves in writing). The sub-sample analysis may therefore show a skewed representation because those who answered more fully are likely to be those who are more engaged with or concerned about their education on these issues.

I will discuss four overarching emotions/feelings in this section (fear, anger, powerlessness, and hope), though often respondents presented more than one of these emotions/feelings across their answers. In so doing, my findings resonate with Jones and Davison's in-depth qualitative study of Australian students' emotional responses to Climate Change Education, which revealed young people feel 'stripped of power', 'stranded by the generational gap', and 'daunted by the future' [36]. Yet, the findings also show seeds of hope and optimism, feelings that are less often heard in surveys about eco-anxieties [39]. As Ojala notes, hope is a complex and multifaceted concept, which is often realized in the context of negative emotional awareness [48]. Transformative ESD can nurture these seeds for hope through a critical discussion of difficult emotions and opening spaces for alternative futures to be debated.

4.3.1. Fear

> *'we're all going to die if we don't act now. schools need to teach us more about climate change.'*
>
> (Male, aged 12, low-income area.)

The sense of foreboding and fear that this boy expresses can be found in various sub-sample responses. Fears ranged from there being '*no ice for the polar bears*' to existential worries about '*my future and existence on this planet*'. One girl defined sustainability as a '*haunted house*' and expressed her anger and powerlessness when she demanded that she be taught how to 'ACTUALLY DO SOMETHING ABOUT THE WORLD BEING KILLED' (capitals in original). Grieving for the future loss of animals and the planet were common, with most respondents in this 'fearful' sub-sample choosing 'animal extinction' as one of their top environmental concerns. There is a sense that time is running out and we need to '*save the planet*', but education is insufficiently preparing young people for this. One girl invoked a military analogy, stating her education is '*not a 'drill' and we need to actually live sustainably because we only have 1 planet*'. For other respondents, the prospect of a '*doomed future*' is likely to lead to mental health problems, which ought to be discussed in an existing '*wellbeing course*'. One boy confided his struggles with depression, which he feels many like him are also suffering because '*everyone expects something great from us. . .life never gives us what we want especially in the current world we live in, so we need time*'.

4.3.2. Anger

> *'I don't think I need anything more but the old people wasting away and wasting resources need to be replaced and put in their place.'*
>
> (Female, aged 15, high-income area.)

There was a recurring theme of generational divide within the survey responses, which in some cases led to anger and in others a sense of powerlessness. For the young girl above, her anger is rooted in the injustice of older people, or '*60 something yr olds*', who '*won't change*' and are using '*fossil fuels and cutting down trees for their own benefit to gain money*', though they will not have to live with the consequences as she will. There was a real sense of betrayal in the responses that have been coded as 'angry', which are not only rooted in generational power imbalances, but also political–economic structures, which have stalled government action and failed to prevent corporate greed. We hear critical voices who call out the focus on individual consumption. As one young man (aged 18 from

a low-income area) said, '*my individual 'carbon footprint' is so minor compared to that of big businesses and burning of fossil fuels*' and he wanted to be taught the *'real issues*'. A young woman demanded to know '*How we can stop mass-industry from harming the environment?*' Anger was not always directed at those with greater power and influence, however. One girl was angry that her peers were not acting on their '*duty to look after the planet*'. She felt these students needed a '*guilt trip*' because they '*are blind to why they shouldn't buy from Shein* [online clothing company]'. Taking up her mantle as a critical citizen-consumer, this respondent trusted businesses as a key source of information on sustainability and climate change but did not trust her friends. Levels of trust in teachers were generally high except for one respondent who bemoaned teachers for '*driving diesel cars*'. Conversely, levels of trust in the government and big businesses were low across the 'angry' sub-sample, with most suggesting they would not trust information from these sources to teach them about sustainability and climate change.

4.3.3. Powerlessness

> *'we are treated as children and not allowed to make considerable changes. We've been passed the ball by the older generation but told we cannot touch it until they've had their time.'*
>
> (Male, aged 17, high-income area.)

The generational divide led many respondents to express feelings of powerlessness, in addition to anger/frustration. Running through the 'powerless' responses was a sense they were taught about '*all the problems in the world*' but not taught '*how we solve them*' in a '*realistic*' way. One young woman reflected that watching '*videos about Greta Thunberg sailing across the Atlantic, it's inspiring and all*', but she does not '*have a chance to do that*'. Instead, she wanted to be taught how to '*do small things that can make big changes*' that '*don't cost a fortune to do*'. Another respondent thought his teaching on living sustainably '*cannot be done by a normal human being yet alone people who can't afford this eco-friendly lifestyle*'. Echoing earlier observations that framing the solution as a consumer choice can exclude those with less economic power, it is worth remembering that during this survey's time period, many families were struggling with a rising cost-of-living. The consequence of this feeling of powerlessness led to two outcomes: first, a desire to be taught what are practical and viable actions for young people, whether '*small things*' or techniques that '*make real positive change rather than the standard "turn off your lights!"* or "*eat less meat!*"'. The second outcome was apathy, with one respondent initially saying she did not care what she was taught but later observing '*life as we know it [will] fade from our own follies, and we won't see it coming*'. Another young man stated there must be change but admitted he has '*given up on allot of society*' and felt that '*quizzes are stupid because in the end people say there making a change when there really not*'. These more negative emotions chime with Ojala's study with Swedish youth who distanced themselves as a way of coping with negative emotions and regulating their worries [40].

4.3.4. Hope

> *'A society that values the wellbeing and happiness of humans as well as cherishing, caring and protecting the environment is what I hope for in the future the most.'*
>
> (Male, age 16, mid-income.)

This final sub-sample of responses turns to more optimistic sentiments that young people have expressed. These respondents want to know learn more about how '*humans and the environment are interconnected*', and how sustainability '*can benefit us as individuals*' and have a '*positive impact [on] people all over the world*'. There was a spirit of possibility in these answers and belief that '*we can reach others through education, optimism and responsible activism*'. But these glimpses of hope were often nestled amongst the more difficult emotions described above. As studies of eco-emotion have highlighted, hope in the context of climate change is often borne from an awareness of the severity of the situation and the collective

actions that are underway to mitigate this [46,48]. All the 'hopeful' sample had completed their own independent research on sustainability and climate change, suggesting that this group was more engaged in this topic. There was a real desire for stories of success and evidence that sustainability efforts are working, as well as recognition of the collective effort required, which '*can make a difference*'. Some respondents believed that everyone making a small difference in their life or shopping differently would lead to broader positive societal change. The wish to make a difference through everyday consumer actions could be interpreted as the beguiling hegemonic influence of neo-liberalism, or instead the political potential of collective consumer actions. Both interpretations are valid, and we should not dismiss how doing something in the face of a complex global problem may enable hope to be realized in the everyday. Although hopeful responses were less common in the sub-sample compared to other emotional responses, it should not be forgotten that over half of the survey respondents sought guidance on 'how to help' (see Figure 7). This highlights significant opportunities for educators and policymakers to leverage young people's readiness to act individually and collectively, promoting open discussions where they can express their sometimes difficult feelings and concerns.

5. Discussion

The analysis above has documented how young people understand key sustainability issues and how this varies by socio-demographic characteristics. It has listened to their evaluations of their existing learning and provided a space to hear their emotions about climate change and sustainability issues. This discussion section focuses on three key contributions the above analysis makes to existing scholarship, and makes recommendations for policy. First, it highlights the gaps in young people's understandings of sustainability and stresses the need for education that fosters critical thinking and action-oriented skills. Second, it explores the dominance of consumer choice in young people's understandings of how they can act on sustainability, reflecting on the consequences of this framing as well as an area for further research. Finally, it considers how young people's feelings about sustainability and climate change might lead to constructive forms of hope if space is made within the curriculum for their emotions to be heard, discussed, and acted upon.

5.1. Gaps in Understandings of Sustainability

Through an analysis of both quantitative and qualitative questions, I have argued there are important gaps in young people's reported understandings of sustainability and other related issues, which vary by socio-demographic characteristics (most notably age and income level). Whilst on the one hand, young people's awareness grows as they progress through the education system, those living in more deprived areas are less likely to report knowing key terms than those living in more affluent areas. This chimes with existing research on inequalities in extra-curricular provision in England [64], and highlights the disparities in access to sustainability education, which isa non-compulsory curriculum topic. Many young people are either unsure what sustainability is or equate it with the environment in isolation from other socio-cultural and economic concerns. In line with existing critical scholarship on ESD, the analysis finds that existing provision does little to challenge the 'status quo' because young people do not connect environmental issues with political systems or anthropocentric values [1,3]. What was striking was how frequently young people equated sustainability and the teaching they had been exposed to with 'defined' behaviors, like recycling, sustainable shopping, and preserving resources. Survey answers revealed the dominance of economic behaviors in the marketplace and knowing the 'facts' about the environment or climate change. These findings have replicated other studies, which have found that 'ESD1' and a focus on scientific facts are overshadowing the landscape of sustainability and Climate Change Education in England [16,27,29,33]. The analysis suggests more needs to be done to create opportunities for the more transformative 'ESD2' or learning *for* sustainability, which is about building 'capacity to think critically'

and equipping young people (and their teachers) with skills and competencies to act (or facilitate action) [14,30,31].

5.2. Dominance of Consumer Choice

The dominant, though not uncontested, message that young people are receiving about acting on sustainability and climate change, is that it involves turning to the marketplace. It was notable how frequently young people equated their capacity to act as relying on their ability to consume or not consume resources. This analysis has explored how this dominant message of 'consumer choice' has different consequences for how young people understand and can enact their political power within society. These consequences included, (1) feeling excluded; (2) being in conflict with peers and others who do not or are unable to act; and (3) offering a simple and accessible way in the everyday for hopeful change.

For those with less economic capital or household power, messages about installing solar panels and driving electric vehicles seem far removed from the types of action they can undertake. When acting on sustainability and climate change is turned into a choice, it places responsibility onto individuals, who have limited opportunity to change their behaviors. Indeed, the assumption that shifting consumer choice is simple has been challenged by sociologists and psychologists for many years [66,67]. Ingrained habits and norms that have developed within distinct webs of meaning and infrastructures of provision are hard to dismantle without those supporting socio-cultural and political–economic systems changing alongside them. Being encouraged to choose sustainable consumer items or engage with practices that were either too expensive or beyond the remit of young people's everyday responsibilities/experiences inevitably was felt as an unrealistic expectation that excluded and blamed them unfairly. It also had the effect of suggesting that the seeds of change are a simple matter of choosing options on the marketplace, which for some young people acted as evidence of a lack of care from peers, parents, teachers, and older generations and put them into conflict with these groups.

Conversely, the 'simple message' of consumer choice can also have the opposite effect. Consumption activities place the hope for change into young people's everyday lives and choices, which was appealing when faced with the complex fear-inducing issues of sustainability and climate change that their generational positions can do little to affect. For many young people who lack a political say in how economic decisions and policies are made, knowing more about *how* they could act was vital. They have been told that sustainable consumption and sustainable living are 'the answer', so they demanded to know more about this in their education. There is hope in these young people's answers, but they must not be left to believe that individual acts in the marketplace are a pre-requisite for being a sustainable citizen.

What this discussion highlights is the need to actively engage with scholarship on sustainable and political consumption when considering debates about sustainability education [70]. This is a promising area for future research to explore. Though there have been recent attempts to offer guidance to educators on the meanings, socio-demographic factors, and practices that shape consumption [12] (p. 146), more needs to be done to expand the vocabulary surrounding consumer choice and consumer-citizenship within ESD scholarship and practice. There is certainly political potential in consumption activities, but these must be realized through organized and collective efforts for them to spark real social change [68,69]. Given the prominence of consumer actions within young people's understanding of sustainability, any revisions to English sustainability education curriculum should consider how best to educate young people about the meanings, collective customs, and systems of provision that shape consumer behavior.

5.3. Young People's Hopes for Sustainability and Climate Change Education

The analysis presented in this paper builds on our understandings of eco-anxieties and emotions in the context of sustainability and Climate Change Education. Existing research has shown that young people do exhibit high levels of concern about the environment and

climate change [39], and that when they are given the opportunity to comment on their education in this field, there is a tendency to focus on negative emotions rather than hopeful or optimistic emotions [36,40,41]. The analysis in this paper aligns with existing research, revealing that young people feel unprepared to address climate change and sustainability issues, and experience emotions of anger, fear, and powerlessness regarding their future and ability to act. But it does also offer evidence of their desires to be given the space to develop practical skills and competencies to help. Over half of the respondents in this survey asked for guidance on '*how to do something*'. Though less often expressed, there were seeds of hope in the survey answers, nestled amongst the negative emotions, which drew attention to the possibilities of collective action (whether in the sphere of consumption or elsewhere) for a better future. As Ojala [37,40,48] and Pihkala's [38] work has highlighted, hope is a complex emotion, which, coupled with eco-anxieties, can be constructively harnessed within transformative models of education, but this relies on educators being aware of their own eco-emotions and making space for young people to voice their difficult feelings so that together a 'constructive hope' can be realized. In keeping with Dunlop and Rushton's plea for policy change in England [35], this paper offers evidence for the need to engage meaningfully with young people's legitimate eco-anxieties and worries, providing space in the curriculum for them to be heard, discussed, and acted upon. More education on the science of climate change or recycling is not sufficient nor in keeping with the growing evidence base that young people need to engage with sustainability and Climate Change Education through participatory, creative, and affect-driven methods in ways that are 'culturally and regionally relevant' [29] (p. 193).

6. Conclusions

This paper has presented findings from a unique survey and revealed key insights into young people's understandings and experiences of sustainability and Climate Change Education. It has highlighted the role of consumer choice in their perceptions of sustainability education and actions, as well as their emotional responses to these. Significant gaps in young people's sustainability knowledge were found, which varied by socio-demographic factors, indicating a need for comprehensive educational reforms. Current education often emphasizes consumer choice, leading young people to equate sustainability with economic or 'defined' consumer behaviors, which can limit their sense of agency and political power. This paper has prioritized youth voice and has listened to their feelings and eco-anxieties (including fears, anger, and powerlessness), as well as their hopes for a better future. In this concluding section, I suggest three policy recommendations based on the analysis in this paper. These are directed towards the English policy context, though they may apply to similar contexts that have yet to embed sustainability within national frameworks (like Australia). Although, it should be highlighted that sustainability education ought to be 'regionally relevant' and reflect the local context [29]. The English Climate Change and Sustainability Education Strategy needs revision and considering the current review of English curriculum being undertaken by the new Labour government, it is hoped that this paper will strengthen the evidence base advocating for substantial changes to the English curriculum.

- *Recommendation 1: Sustainability education should be embedded within the English National Curriculum.*
  ESD has been championed as vital for the transition to sustainable societies, equipping the population with key knowledge and skills. However, within England (as in many other parts of the world) it is not something that has been effectively embedded within educational policies. The consequences of this for young people in England are inequalities in opportunities to access sustainability education because it is not seen as a right for every child (as it is in Scotland). A policy of National Curriculum reform should equalize access to sustainability education across different socio-economic backgrounds, ensuring that all young people can become informed and active participants in building a sustainable future. There is already a range of

resources from education experts with ideas of how sustainability education could be embedded within the National Curriculum [7,71].

- *Recommendation 2: Sustainability education needs to foster key critical and action competencies and promote a holistic understanding of the interconnected dimensions of sustainability.* Given critical voices about ESD and its promotion of economic dimensions of sustainability [1,3,35], and the evidence from the survey respondents in this study, education needs to integrate critical thinking and action-oriented skills to foster a deeper understanding of sustainability beyond consumerism. For example, many young people use social media to learn about climate change and sustainability, which makes it crucial to develop their critical thinking skills regarding online information, especially where algorithms are constructing a mediated version of 'reality' [72]. This priority has already been highlighted by the new education secretary who is reviewing England's curriculum [73]. There is a need to develop more holistic understandings of sustainability (and consumption) that draw attention to the interconnected dimensions of these concepts, which are embedded within political and socio-cultural systems. To achieve this, investments must be made in teacher training because teachers have reported feeling unprepared and underfunded to educate for action on sustainability and climate change [14,17]. The UNESCO Greening Curriculum Guidance [12] and the EU Sustainability Competencies framework [30] would provide a good starting point for designing learning activities and teacher professional development programs, which build on critical scholarship about transformative and creative approaches to sustainability and Climate Change Education [2,29,31].
- *Recommendation 3: Sustainability education should create spaces for young people to express and address their eco-anxieties and hopes for the future.* Any revision to education policy on sustainability must take seriously young people's legitimate fears and worries about their future [39], and give them the opportunity to influence the policies that will impact upon them and their futures. The data presented in this paper and supported by other studies [36,40,41] show that young people's negative emotions need to be heard and discussed, with opportunities for teachers and young people to work together to imagine hopeful collective futures through constructive actions. Participatory, interdisciplinary, and creative methods might be used to stimulate emotional literacies [29], and educators need appropriate support to facilitate and promote open discussions about eco-emotions [38]. By allowing 'constructive hope' to be discussed and debated critically, young people may feel more supported and resilient to face sustainability challenges.

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Data Availability Statement: This data reported in this survey were gathered by a third party. A report of the main findings from the whole survey is available [50]. Should you wish to access the raw data, please contact admin@se-ed.org.uk to request this. Only non-commercial uses of the data will be considered.

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Conflicts of Interest: The author acted as a trustee for SEEd between 2019 and 2024 and has worked closely with SEEd to design and analyze the survey. The author's role was to advise on questions, and to analyze the survey data collected to produce a report for SEEd [50], for which a small

consultancy fee (£2000) was awarded to the University of Essex. SEEd designed and then promoted the survey within schools and have used the findings to inform their delivery of the SEEd Young Changemaker course, which is a year-long program offered to schools and youth groups in the UK that centers on youth-led action learning. SEEd have not been involved in the analysis of the survey; the interpretation of the data; or in the writing of this manuscript. SEEd are supportive of the results being published but do not have control over the key findings described.

Appendix A

Details of the survey questions analyzed in this paper can be found below:
Section 1 on understandings of sustainability and related terms:

- What is the first thing you think of if I say 'Sustainability'? (Qualitative)
- Young people we have worked with have identified 12 issues that they think are the biggest environmental concerns. Please tick the three you think are the most important. (Changing business operations, Food, farming and diet, Transport and emissions, Changing people's behaviors, Human's existence and ignorance, Plastic and single use items, Greenhouse gases, Melting Ice caps, Animal Extinction, Fossil Fuels, Deforestation, Pollution and littering) (Quantitative)
- Which of the following terms have you heard of? (Green Economics, Biodiversity, Climate change, Ethical investment, Net-Zero Carbon, Nature conservation, Organic farming, Fair trade, Circular Economy, Rewilding, Social Justice, Gender Equality, Poverty reduction, Carbon footprint.) (Quantitative)
- If sustainability could be broken down into eight key issues; in what order would you 'rate' these issues, with 1 being the most important, and 8 being the least important? (Quantitative)

Section 4 asked questions about how the education system is contributing to young people's understanding of sustainability.

- We would like to know where you have learnt about sustainability and climate change, please can you tick all that apply (School Geography class, School D&T class, School Science class, School trips, School other*, Family, Friends, Social media, TV, Magazines, Through your own research, Through an eco-club or council, Through events outside of school, I haven't learned about it) (Quantitative)
- What do you think you are being taught about sustainability (e.g., things that contribute to creating a fair and just world living within the Earth's resources)? (Qualitative)
- What sources do you trust to teach you about sustainability and climate change? Each source was rated on a 5-point Likert scale (Teachers, Family, Friends, Experts, Faith groups, Social media, Google and other internet searches, Newspapers, Television, Magazines, Government, Businesses, Social justice and Environmental organizations) (Quantitative)
- What would you like to be taught that would help you live sustainably? (Qualitative)
- Do you have any further comments? (Qualitative)

Appendix B

Table A1. Categorization of the types of definition provided in response to question 'What is the first thing you think of if I say 'Sustainability?''.

Definition of Sustainability	Criteria for Coding	*Sample Response*	Number (Percentage)
Environment	Answers that foreground the environment (maybe just as one word) and use words like trees, eco-friendly, green, planet, climate change, and global warming	*Personally, I think sustainability is where we live a lifestyle which in regards to the environment is safe and neutral with positive effects and not causing concerns such as damage, change or loss*. (Male, aged 14, high-income area)	490 (31%)

Table A1. *Cont.*

Definition of Sustainability	Criteria for Coding	*Sample Response*	Number (Percentage)
Economic	Answers that refer to 'resource use', sustainable consumption, or resource preservation in the form of energy reduction, recycling, waste management, or plastics	*I think of buying sustainable products, sustainable palm oil, plastic free shopping and sustainable farming to help stop climate change and plastic pollution.* (Female, age 13, mid-income area)	259 (16%)
Social	Answers that talk about future generations, equity, health, better education, safety, and better communities	*Meeting our needs while also ensuring a good life is possible for future generations.* (Female, aged 13, low-income area)	53 (3%)
More than one of the above	Answers that talk about environmental, economic, or social definitions together; often those that foregrounded generational equity and resources went here (like the UN definition of sustainability)	*The ability to live-as an individual and a people as a whole-in a fashion which we could repeat every generation without comprimising the environment in which we live and the safety and integrity of the human and non-human population.* (Male age 16, mid-income area)	105 (7%)
Vague	Answers that talk about maintaining something but no real sense of what, usingterms like balance, stable, preservation, last a long time, or reliability. Many of the one-word answers went here	*Something that is maintained at a level or rate* (Non-Binary aged 14, high-income area)	510 (32%)
No definition or incorrect	No answer or no awareness	*I don't know what it means* (Female, aged 11, mid-income area)	173 (11%)
Total			1590 (100)

References

1. Huckle, J.; Wals, A.E.J. The UN Decade of Education for Sustainable Development: Business as Usual in the End. *Environ. Educ. Res.* **2015**, *21*, 491–505. [CrossRef]
2. Hayward, B. *Children, Citizenship and Environment*; Routledge: London, UK, 2012.
3. Kopnina, H. Education for the Future? Critical Evaluation of Education for Sustainable Development Goals. *J. Environ. Educ.* **2020**, *51*, 280–291. [CrossRef]
4. Eaton, E.M.; Day, N.A. Petro-Pedagogy: Fossil Fuel Interests and the Obstruction of Climate Justice in Public Education. *Environ. Educ. Res.* **2020**, *26*, 457–473. [CrossRef]
5. Wheeler, K. Educating Children as Sustainable Citizen-Consumers: A Qualitative Content Analysis of Sustainability Education Resources. *J. Moral Educ.* **2023**, *52*, 453–473. [CrossRef]
6. World's Largest Lesson. Transforming Education. 2023. Available online: https://assets-global.website-files.com/5f3eab3adf0948c7d3319877/644fef426cdc5811ed4fde67_WLL%20-%20Transforming%20Education%20Report.pdf (accessed on 17 June 2024).
7. Catallo, A.; Lee, E.; Vare, P. *Curriculum for a Changing Climate: A Track Changes Review of the National Curriculum for England*; Teach the Future: London, UK, 2022. Available online: https://www.teachthefuture.uk/tracked-changes-project (accessed on 1 July 2024).
8. UNESCO. *Youth Demands for Quality Climate Change Education*; UNESCO: Paris, France, 2022. Available online: https://unesdoc.unesco.org/ark:/48223/pf0000383615 (accessed on 17 June 2024).
9. Al-Naqbi, A.K.; Alshannag, Q. The Status of Education for Sustainable Development and Sustainability Knowledge, Attitudes, and Behaviors of UAE University Students. *Int. J. Sustain. High. Educ.* **2018**, *19*, 566–588. [CrossRef]
10. Boca, G.D.; Saraçlı, S. Environmental Education and Student's Perception, for Sustainability. *Sustainability* **2019**, *11*, 1553. [CrossRef]
11. Francis, J.E.; Davis, T. Adolescents' Sustainability Concerns and Reasons for Not Consuming Sustainably. *Int. J. Consum. Stud.* **2015**, *39*, 43–50. [CrossRef]
12. UNESCO. *Greening Curriculum Guidance—Teaching and Learning for Climate Action*; UNESCO: Paris, France, 2024; ISBN 978-92-3-100685-2.
13. UNESCO. *Youth Declaration on Transforming Education*; UNESCO: Paris, France, 2022. Available online: https://media.unesco.org/sites/default/files/webform/ed3002/tes_youthdeclaration_en_0.pdf (accessed on 1 June 2024).
14. UNESCO. *Getting Every School Climate-Ready: How Countries Are Integrating Climate Change Issues in Education*; UNESCO: Paris, France, 2021. Available online: https://unesdoc.unesco.org/ark:/48223/pf0000379591 (accessed on 17 June 2024).

15. Department for Education. *Sustainability and Climate Change: A Strategy for the Education and Children's Services Systems*; The National Archives: London, UK, 2022. Available online: https://www.gov.uk/government/publications/sustainability-and-climate-change-strategy/sustainability-and-climate-change-a-strategy-for-the-education-and-childrens-services-systems (accessed on 21 June 2023).
16. Greer, K.; King, H.; Glackin, M. The 'Web of Conditions' Governing England's Climate Change Education Policy Landscape. *J. Educ. Policy* **2023**, *38*, 69–92. [CrossRef]
17. Howard-Jones, P.; Sands, D.; Dillon, J.; Fenton-Jones, F. The Views of Teachers in England on an Action-Oriented Climate Change Curriculum. *Environ. Educ. Res.* **2021**, *27*, 1660–1680. [CrossRef]
18. Martin, S.; Dillon, J.; Higgins, P.; Peters, C.; Scott, W. Divergent Evolution in Education for Sustainable Development Policy in the United Kingdom: Current Status, Best Practice, and Opportunities for the Future. *Sustainability* **2013**, *5*, 1522–1544. [CrossRef]
19. IPSOS. *Climate Literacy Amongst School Leavers*; IPSOS: London, UK, 2022. Available online: https://www.ipsos.com/sites/default/files/ct/news/documents/2022-09/climate-literacy-among-school-leavers-ipsos-rmets-2022.pdf (accessed on 18 June 2024).
20. SOS. *Sustainability Skills Survey 2022–23*; Students Organising for Sustainability: Stockport, UK, 2023. Available online: https://sustainability.nus.org.uk/research/sustainability-skills-survey (accessed on 18 June 2024).
21. Scott, W.; Vare, P. *Foundations for Sustainable Development: A History of Learning and Environment*; Routledge: Oxon, UK; New York, NY, USA, 2021; ISBN 978-0-367-22192-8.
22. UNESCO. *Education for Sustainable Development: A Roadmap*; UNESCO: Paris, France, 2020. Available online: https://unesdoc.unesco.org/ark:/48223/pf0000374802.locale=en (accessed on 6 July 2023).
23. Bylund, L.; Hellberg, S.; Knutsson, B. 'We Must Urgently Learn to Live Differently': The Biopolitics of ESD for 2030. *Environ. Educ. Res.* **2022**, *28*, 40–55. [CrossRef]
24. Gadotti, M. What We Need to Learn to Save the Planet. *J. Educ. Sustain. Dev.* **2008**, *2*, 21–30. [CrossRef]
25. Warlenius, R. Learning for Life: ESD, Ecopedagogy and the New Spirit of Capitalism. *J. Environ. Educ.* **2022**, *53*, 141–153. [CrossRef]
26. Kahn, R. From Education for Sustainable Development to Ecopedagogy: Sustaining Capitalism or Sustaining Life? *Green Theory Prax. J. Ecopedagogy* **2008**, *4*, 1–14. [CrossRef]
27. Vare, P.; Scott, W. Learning for a Change. *J. Educ. Sustain. Dev.* **2007**, *1*, 191–198. [CrossRef]
28. Jordan, K. The Feasibility of Integrating Insights From Character Education and Sustainability Education—A Delphi Study. *Br. J. Educ. Stud.* **2022**, *70*, 39–63. [CrossRef]
29. Rousell, D.; Cutter-Mackenzie-Knowles, A. A Systematic Review of Climate Change Education: Giving Children and Young People a 'Voice' and a 'Hand' in Redressing Climate Change. *Child. Geogr.* **2020**, *18*, 191–208. [CrossRef]
30. European Commission; Joint Research Centre. *GreenComp, the European Sustainability Competence Framework*; Publications Office of the European Union: Luxemberg, 2022. Available online: https://data.europa.eu/doi/10.2760/13286 (accessed on 11 July 2024).
31. Sterling, S. *The Future Fit Framework: An Introductory Guide to Teaching and Learning for Sustainability in HE (Guide)*; Higher Education Academy: York, UK, 2011.
32. Sterling, S. *Sustainable Education: Re-Visioning Learning and Change*; Green Books Ltd.: Devon, UK, 2001.
33. Glackin, M.; King, H. Taking Stock of Environmental Education Policy in England—The What, the Where and the Why. *Environ. Educ. Res.* **2020**, *26*, 305–323. [CrossRef]
34. Ball, S.J. *The Education Debate*, 4th ed.; Policy Press: Bristol, UK, 2021; ISBN 978-1-4473-6014-8.
35. Dunlop, L.; Rushton, E.A.C. Putting Climate Change at the Heart of Education: Is England's Strategy a Placebo for Policy? *Br. Educ. Res. J.* **2022**, *48*, 1083–1101. [CrossRef]
36. Jones, C.A.; Davison, A. Disempowering Emotions: The Role of Educational Experiences in Social Responses to Climate Change. *Geoforum* **2021**, *118*, 190–200. [CrossRef]
37. Ojala, M.; Cunsolo, A.; Ogunbode, C.A.; Middleton, J. Anxiety, Worry, and Grief in a Time of Environmental and Climate Crisis: A Narrative Review. *Annu. Rev. Environ. Resour.* **2021**, *46*, 35–58. [CrossRef]
38. Pihkala, P. Eco-Anxiety and Environmental Education. *Sustainability* **2020**, *12*, 10149. [CrossRef]
39. Hickman, C.; Marks, E.; Pihkala, P.; Clayton, S.; Lewandowski, R.E.; Mayall, E.E.; Wray, B.; Mellor, C.; Van Susteren, L. Climate Anxiety in Children and Young People and Their Beliefs about Government Responses to Climate Change: A Global Survey. *Lancet Planet. Health* **2021**, *5*, e863–e873. [CrossRef] [PubMed]
40. Ojala, M. Regulating Worry, Promoting Hope: How Do Children, Adolescents, and Young Adults Cope with Climate Change? *Int. J. Environ. Sci. Educ.* **2012**, *7*, 537–561.
41. Rushton, E.A.C.; Sharp, S.; Kitson, A.; Walshe, N. Reflecting on Climate Change Education Priorities in Secondary Schools in England: Moving beyond Learning about Climate Change to the Emotions of Living with Climate Change. *Sustainability* **2023**, *15*, 6497. [CrossRef]
42. Walker, C. Uneven Solidarity: The School Strikes for Climate in Global and Intergenerational Perspective. *Sustain. Earth* **2020**, *3*, 5. [CrossRef]
43. Gough, A.; Reid, A.; Stevenson, R.B. Environmental and Sustainability Education in Australia. In *World Review*; CRC Press: Boca Raton, FL, USA, 2024; pp. 297–317, ISBN 978-1-00-314520-2.
44. Boluda-Verdú, I.; Senent-Valero, M.; Casas-Escolano, M.; Matijasevich, A.; Pastor-Valero, M. Fear for the Future: Eco-Anxiety and Health Implications, a Systematic Review. *J. Environ. Psychol.* **2022**, *84*, 101904. [CrossRef]

45. Stanley, S.K.; Hogg, T.L.; Leviston, Z.; Walker, I. From Anger to Action: Differential Impacts of Eco-Anxiety, Eco-Depression, and Eco-Anger on Climate Action and Wellbeing. *J. Clim. Chang. Health* **2021**, *1*, 100003. [CrossRef]
46. Schwartz, S.E.O.; Benoit, L.; Clayton, S.; Parnes, M.F.; Swenson, L.; Lowe, S.R. Climate Change Anxiety and Mental Health: Environmental Activism as Buffer. *Curr. Psychol.* **2023**, *42*, 16708–16721. [CrossRef]
47. Verplanken, B.; Marks, E.; Dobromir, A.I. On the Nature of Eco-Anxiety: How Constructive or Unconstructive Is Habitual Worry about Global Warming? *J. Environ. Psychol.* **2020**, *72*, 101528. [CrossRef]
48. Ojala, M. Hope and Anticipation in Education for a Sustainable Future. *Futures* **2017**, *94*, 76–84. [CrossRef]
49. Hill, R.; Finlayson, A. SEEd Youth Listening Project Report 2018/19. Available online: https://se-ed.org.uk/how-to-get-started/attitudes-to-sustainability-survey/ (accessed on 25 October 2023).
50. Wheeler, K. *SEEd Youth Listening Project Report 2021–23: Attitudes to Sustainability*; SEEd (Sustainability and Environmental Education): Gloucestershire, UK, 2023. Available online: https://se-ed.org.uk/how-to-get-started/attitudes-to-sustainability-survey/ (accessed on 4 December 2023).
51. Clark, T.; Foster, L.; Sloan, L.; Bryman, A. *Bryman's Social Research Methods*, 6th ed.; Vacchelli, E., Ed.; Oxford University Press: Oxford, UK, 2021.
52. Vehovar, V.; Manfreda, K.L. Overview: Online Surveys. In *The SAGE Handbook of Online Research Methods*; Sage Publications: London, UK, 2017; pp. 143–161.
53. Fielding, J.; Fielding, N.; Hughes, G. Opening up Open-Ended Survey Data Using Qualitative Software. *Qual. Quant.* **2013**, *47*, 3261–3276. [CrossRef]
54. Braun, V.; Clarke, V.; Boulton, E.; Davey, L.; McEvoy, C. The Online Survey as a Qualitative Research Tool. *Int. J. Soc. Res. Methodol.* **2021**, *24*, 641–654. [CrossRef]
55. Rädiker, S.; Kuckartz, U. *Analyzing Open-Ended Survey Questions with MAXQDA*; MAXQDA Press: Berlin, Germany, 2020; ISBN 978-3-948768-02-7.
56. National Statistics. English Indices of Deprivation. 2019. Available online: https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019 (accessed on 23 May 2024).
57. De Vaus, D. *Surveys in Social Research*, 6th ed.; Routledge: Oxon, UK, 2014.
58. Wheeler, K. Differences between Thematic Analysis and Content Analysis: Exploring Environmental and Sustainability Education Resources. *Sage Res. Methods Cases* **2022**. [CrossRef]
59. Schreier, M. *Qualitative Content Analysis in Practice*; Sage Publications: London, UK, 2012.
60. Mellon, J.; Bailey, J.; Scott, R.; Breckwoldt, J.; Miori, M.; Schmedeman, P. Do AIs Know What the Most Important Issue Is? Using Language Models to Code Open-Text Social Survey Responses at Scale. *Res. Polit.* **2024**, *11*, 20531680241231468. [CrossRef]
61. Morgan, D.L. Exploring the Use of Artificial Intelligence for Qualitative Data Analysis: The Case of ChatGPT. *Int. J. Qual. Methods* **2023**, *22*, 16094069231211248. [CrossRef]
62. Wheeler, K. How to Use Generative AI to Assist the Analysis of Qualitative Data. *Sage Res. Methods Guide*, 2024; *submitted*.
63. Basis Social. *Gen Z(Ero): Creating a Pathway to a Greener, Fairer Future*; Co-op Foundation and Co-op: Manchester, UK, 2023. Available online: https://www.coopfoundation.org.uk/wp-content/uploads/Gen-Zero-report.pdf (accessed on 5 October 2023).
64. Social Mobility Commission. *An Unequal Playing Field: Extra-Curricular Activities, Soft Skills and Social Mobility*; Social Mobility Commission: London, UK, 2019. Available online: https://www.gov.uk/government/publications/extra-curricular-activities-soft-skills-and-social-mobility/an-unequal-playing-field-extra-curricular-activities-soft-skills-and-social-mobility (accessed on 4 July 2024).
65. Lozano-Díaz, A.; Fernández-Prados, J.S. Young Digital Citizenship in #FridaysForFuture. *Rev. Educ. Pedagogy Cult. Stud.* **2022**, *44*, 447–468. [CrossRef]
66. Middlemiss, L. *Sustainable Consumption: Key Issues*; Routledge: London, UK, 2018.
67. Shove, E. Beyond the ABC: Climate Change Policy and Theories of Social Change. *Environ. Plan. A* **2010**, *42*, 1273–1285. [CrossRef]
68. Cohen, L. *A Consumers' Republic*; Alfred A. Knopf: New York, NY, USA, 2003.
69. Wheeler, K. *Fair Trade and the Citizen-Consumer: Shopping for Justice*; Palgrave Macmillan: Hampshire, UK, 2012; ISBN 978-1-137-28367-2.
70. Wheeler, K. Bringing the Sociology of Sustainable Consumption into Conversation with Education for Sustainable Development. University of Essex: Colchester, UK, 2024; *in preparation*.
71. Knight, S.; McQuaid, S. *Climate Education in the Curriculum*; National Climate Education Action Plan Group: Reading, UK, 2024. Available online: https://static.reading.ac.uk/content/PDFs/files/Planet/climate-education-in-curriculum.pdf (accessed on 11 July 2024).
72. Couldry, N.; Hepp, A. *The Mediated Construction of Reality*; Polity Press: Cambridge, UK; Malden, MA, USA, 2017; ISBN 978-0-7456-8130-6.
73. The Telegraph. Teach Children How to Think, Not What to Think. *Telegraph Online*, 10 August 2024. Available online: https://www.telegraph.co.uk/opinion/2024/08/10/teach-children-how-to-think-not-what-to-think/ (accessed on 12 August 2024).