

# Green career education and guidance through the perceptions and experiences of career practitioners in English secondary schools

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## Abstract

The transition to a low carbon economy, climate change mitigation and adaptation, and nature restoration are expected to lead to a transformation of economic sectors. This will require a growth in green skills, a receptiveness to green roles and an understanding of the potential greening of all sectors. Plant suggests that green career education and guidance could provide the bridge between the emerging greener labour market and career development in schools. This article presents inductive qualitative research, using semi-structured interviews and reflexive thematic analysis (RTA) to explore the perceptions of career practitioners in English secondary schools revealing a broad spectrum of understanding and approach. A nascent green career education and guidance framework has emerged from a synthesis of existing literature and the research findings.

**Key words:** Green career education and guidance; green jobs; green skills; ecojustice; ideological perspectives; England

The OECD suggests that 25% of jobs will be affected positively or negatively by net-zero policies (2024). New and emerging green roles and traditional green sectors are likely to experience growth and transformation (Warhurst, 2024), as 'investment, regulation and technology shift towards net-zero' (ESCO Publications, 2022). This is particularly so in energy, the circular economy, climate change mitigation and adaptation, nature restoration, transport, and in the decarbonisation of buildings (Green Alliance, 2024).

However, as economic sectors align with net-zero goals there will be labour market 'losers' as high emission industries restructure, downsize or exit the market (OECD, 2024), with job displacements disproportionately affecting specific regions. While net-zero transition is essential for a sustainable future, it represents significant social and economic challenges. Policies to support displaced workers through early career guidance intervention, upskilling and re-skilling are essential (OECD, 2024) to minimise impacts. Attracting new entrants and school leavers to green sectors will also be vital to address potential skills shortages (Green Alliance, 2024).

From as early as 1996, the seminal writings of Plant (1996; 2014; 2020) and Barham and Hall (1996) have discussed how career theory and practice may respond to the opportunities and challenges presented by the green transition. Plant calls for a 'paradigm shift' and a 'new utopian' approach for career theory and practice where green career education and guidance could be the bridge between the changing labour market and career development in schools (Plant, 2015; 2020; 2021; 2022). Existing literature provides a critical account of the academic views, theories and perspectives on green career education and guidance.

However, there is a lack of empirical research addressing how green career education and guidance is understood and approached in English secondary schools through the perceptions and experiences of career practitioners. Latest estimates indicate that 900,000 young people, between the ages of 16 and 24 are not in education, employment, or training (ONS, 2024). Providing accessible pathways for young people to gain green skills, which reduce the environmental impact of human activity, and employment in green roles/sectors could address skills shortages and help to tackle youth unemployment (Green Alliance, 2024; LinkedIn Economic Graph, 2023). Indeed, to ignore the current school population is denying young people access to potential growth areas and leaving them unaware and unprepared for the transition towards net-zero and the impact this will have on the labour market and workplaces.

This qualitative and inductive study presents new research into what is happening in schools. It is designed to enable career practitioners to fully convey their thoughts on green career education and guidance. A synthesis of existing academic theories with the research findings on career practitioners' understanding and experiences has brought ideological, conceptual and practical ideas into one place. An unexpected outcome has been the emergence of a nascent green career education and guidance framework, which offers a variety of practicable career development approaches, for practitioners to consider.

## Literature review

### **Towards an ecojustice approach to career education and guidance**

Traditional career development theory has emerged out of a prevailing neoliberal ideological preoccupation with 'unrestrained economic growth', and 'unbridled exploitation of finite natural resources' (Irving, 2013, p.2). The emphasis is on individualism, the pursuit of economic goals and where social and environmental justice considerations are secondary to growth and economic development (Irving & Malik, 2019). Hooley and Sultana (2016) explore how a social justice perspective could provide an alternative to the neoliberal position. In the context of this article we might reframe this as an 'ecojustice' approach which acknowledges that vulnerable communities are more likely to be impacted by climate change, decline in biodiversity and experience environmental degradation. There is a need to mitigate against these unequal consequences, whether this is through technological solutions or through a change in our relationship with the natural world and changes to patterns of production and consumption.

Plant suggests that green career education and guidance could be the link between the emerging green labour market, ecojustice, and career development in schools (2021). Green career education connects sustainability and environmental education with career education, including an understanding of the impact of the transition to net-zero and a green economy on the labour market. Green career guidance can support a curiosity about green career opportunities and encourages young people to consider the environmental and community impacts of their career decisions.

Barnes refers to 'transformative' career education and guidance to 'prepare young people to contribute to the well-being of themselves, other people, places, and planet' (2020, p.272). This is a combination of technocratic (promoting work readiness and labour market realism), developmental (self-understanding, adaptability and resilience leading to personal growth and well-being) and emancipatory (not just about individual change but bringing about social change such as social mobility, social diversity, and community cohesion) rationalities. He suggests that a transformative approach may provide a useful structure for green career education and guidance.

On a similar note, Irving and Malik (2019) and Robertson (2020) suggest that careers can be either reactive, signposting green jobs and looking for a technological solution, or proactively part of the solution. In fact, by merely encouraging young people to look at green jobs is 'drawing a veil over deeper ecojustice issues' (Irving & Malik, 2019, p.258) and therefore not enough. For example, finding work in 'environmentally friendly manufacturing does not address the issues of over-consumption and short-termism of a throw away society.... at the expense of social equity and community well-being' (ibid, p.258).

### **Ideological perspectives on green career education and guidance.**

Watts' quadrant framework (1996) relates career guidance practice to four ideological positions (conservative, liberal, progressive, and radical) which offers a useful structure to consider green career education and guidance. Watts suggests that different guidance approaches relate to the individual or society, and either support the current status quo or advocate for change. Hooley and Sultana (2016) use Watts' framework to challenge

career practitioners to decide whether their role is to primarily operate as a 'technocrat that skilfully helps others fit into the world as it is or whether they are prepared to work within a zone of professional discomfort and challenge injustices evident in contemporary labour markets and social relations more broadly' (p.5).

A 'conservative' position is concerned with work readiness and employability and helping individuals to adapt to the roles that society most needs them to be in, whereas a 'liberal' position respects the values and rights of the individual to make their own decisions regarding their careers and where guidance facilitates rather than influences (Watts,1996). This is aligned with a non-directive approach to career guidance. However, Irving (2013) raises the question of whether we should 'disrupt the illusion that all will be well if we simply enable young people to make career choices that may appear to be right for the moment' (p.7). A 'progressive' position challenges the 'conservative' and 'liberal' approaches and suggests that guidance needs to facilitate the individual to acquire the skills and attributes to achieve their potential within the existing status hierarchy of the opportunity structure (Watts,1996). However, critiques of this approach say that even though people may be moved around the 'systemic structure' it does not change the hierarchy itself and so does not address inherent structural inequalities or advocate for social justice (Watts,1996). Alternatively, a 'radical' approach to guidance seeks to promote social change and seeks to alter systemic and structural inequalities.

Dobson (2007) defines environmentalism 'light green' politics, as a managerial approach to environmental problems with a focus on cleaner technology and cleaner conspicuous consumption, and that technology can solve the problems without any 'fundamental change in present values or patterns of production and consumption' and is where a conservative and liberal perspective would be positioned (p.3). However, 'dark green' politics suggests an ecologist ideology and demands a radical change in 'our relationship with the natural world, and the creation of a new economic and social order which will allow human beings to live in harmony with the planet' (Porritt & Winner, 1998, p.9; as in Dobson, 2007, p.3). Dobson's ecologism is aligned to a progressive and radical perspective requiring significant changes to social, economic, and political order (2007). The question is whether green career education and guidance can be more than environmentalist, and if not, is an environmentalist approach sufficient given the existential climate and nature crisis?

### **Green career education and guidance in practice**

A theme running through the literature is that green career education needs to start early and precede guidance as pre-school/primary school years are fundamental in determining beliefs, values, attitudes, and self-efficacy (Plant, 2021). This is where 'we can get individuals thinking about environmental issues' and that it is 'absurd to ask people to think about their careers and their futures without recognising that we face a major climate crisis' (Hooley, 2022).

Since the Paris Agreement in 2015 there have been a number of significant research projects on the contribution career education can make to the 'legally binding international treaty on climate change' (UNFCCC, 2015). The research of Di Fabio and Bucci (2016), Međugorac et al. (2020), and Santilli, et al. (2020) all present a compelling case for green career education to start early and to precede guidance. A particular theme emerging is the link between empathy, connectedness to nature and community and a receptiveness

to green roles, and that empathy can be fostered through a green career education programme (Di Fabio & Bucci, 2016).

Plant (2014) suggests that an awareness of the environmental impacts of career choices should be made explicit and opportunities are created for experiencing work that makes a positive contribution to the environment. In addition, labour market information (LMI) materials should include an environmental dimension and should be used alongside an 'inspirational list of green jobs and activities' (Plant, 2015, p.120).

Hooley et al. (2021) have developed 'Five signposts' to 'socially just career guidance' which encourages questions such as how changes in climate and environment will change the nature of work – growth, decline and transformation. Hooley (2022) stresses the need for an understanding of the unjust and unequal impact of climate change, with the most vulnerable, marginalised, and in particular girls and women being most impacted (British Council, [n.d.]).

## Methodology

A case study research design was adopted with eight career practitioners as the case studies. This provided the necessary scope for detailed research when there was no comparator group, no claim to change overtime, no randomised controlled trial cases, and is not causal. A qualitative research methodology was used, with individual semi-structured interviews and a series of stimulus cards, to provoke reflection, discussion, and generate valuable insights.

Participants were selected purposively because they were all frontline practitioners involved in careers in English secondary schools. Recruitment was via LinkedIn and Facebook with eight practitioners volunteering to be part of the research. They represented the state and private sectors and a range of roles including careers leaders, advisers, consultants and directors. Three participants worked in coastal counties where there is a growing potential for traditional green jobs, and where the impacts of climate change could be severe. The responses from these participants reflected a broader understanding of green career education and guidance. This data set is too small to make a claim that geographical location has affected responses and is not the intention of this research. However, this may be a consideration for future research.

This new research is exploratory and inductive and required working alongside the practitioners to learn from the complexity and richness of their perceptions and experiences. The findings, emerging from the repeated themes across the data set, represent the multiple perceived realities and understanding of participants, and an insight into what is happening in secondary schools. This has added a practical dimension to the existing literature and has contributed to the exemplification of the ideological/ecological positions of Watts (1996) and Dobson (2007). An unexpected outcome is the emergence of a new green career education and guidance framework.

The research received ethical approval from Nottingham Trent University School of Social Sciences Research Ethics Committee in December 2022. Confidentiality and anonymity were respected during the process. Careful consideration was given to the interview schedule (phraseology of questions and prompts) as the researcher's own bias and values

may influence respondents. Balancing being part of the conversation but not being leading or influencing was at times challenging because of an inherent personal enthusiasm. Being reflexive of personal values when managing the data has been imperative.

A reflexive thematic analysis (RTA) was used to manage the data, using the Braun and Clarke (2022) six phase approach, and Table 1 documents the iterative nature of the process.

Phase One	Phase Two	Phase Three	Phase Four	Phase Five	Phase Six
<p>Familiarisation phase.</p> <p>Eight interviews audio-recorded and transcribed.</p> <p>Transcription and audio-recording listened to several times to check for accuracy, and familiarisation with what has been said.</p>	<p>Generating initial codes.</p> <p>NVivo (CAQDAS) was used to code items and help to track/log the coding process.</p> <p>Coding was posteriori (no pre-existing data frame).</p> <p>Any item which was deemed as relevant to the research question was coded.</p> <p>The initial coding of the eight transcripts resulted in 215 codes and 1051 references. These were clustered around 6 parent codes. The average per file was 26 codes and 131 references. Codes were merged, sorted, recoded and uncoded. Codebooks generated by NVivo were used to track the evolution of codes.</p>	<p>Generating themes.</p> <p>Once all the items were coded, the emphasis moved to interpreting the aggregated meaning across the data set and how different codes could be clustered to form themes and sub-themes. Successive thematic maps helped to track this recursive process, showing the relationship between parent and child codes and the first stage in identifying themes.</p>	<p>Reviewing potential themes.</p> <p>The thematic analysis was not linear, and the reviewing phase led to deeper questioning of the standout repeated patterns across the data set.</p>	<p>Defining and naming themes.</p> <p>The final thematic map looked very different to the initial map, with 5 named themes and 24 sub-themes. These are organised into a thematic framework related to the research question (Table 2). Data items were identified to use as quotes when writing up the findings.</p>	<p>Producing the report.</p> <p>The order in which themes were reported was established so there was a logical sequence and would meaningfully build a cogent narrative of the findings and discussions.</p>

**Table 1. Reflexive Thematic Analysis (RTA) based upon Braun and Clarke (2022).**

## Findings and discussion

The findings were revealed through the post-interview RTA with five themes and 24 sub-themes (Table 2).

Themes	Sub-themes (merging and sorting codes)	Files	References
Greenwashing or a conduit for ecojustice?	This is an important part of a huge conversation	8	37
	There is confusion and risk of greenwashing.	6	23
	Lack of information coming into schools or reaching career practitioners.	6	12
Wrestling with green guidance and remaining ethical.	Wrestling with green guidance and remaining ethical.	8	15
	Adheres to the CDI code of ethics, non-directive	8	8
	Careers do not happen in a vacuum - how can the environmental context and the green economic revolution be ignored in guidance conversations?	8	16
	Signposting to traditional green jobs only if a student brings a green mindset to a guidance meeting.	6	24
	Tackling profound concepts in a 30-minute guidance conversation is unlikely.	8	10
	This is more than signposting to traditional green jobs.	2	4
	It is the responsibility of the practitioner to educate themselves and keep up to date.	1	1
Green career education needs to precede guidance.	Guidance is more about the welfare of the young person and checking in with them.	2	2
	Green career education needs to precede green career guidance	8	21
	Time and budget given to career education and guidance is 'woefully' inadequate.	8	95
	Sustainability education is happening to some degree but are there links to career education?	8	27
	Preconceptions and myths need challenging prior to guidance	8	24
	Can't see it, can't be it - lack of diversity is a real issue.	8	14
Fostering a green ethos is everyone's responsibility.	The importance of responding to a ground swell of concern for the environment and climate voiced by young people.	4	12
	This is everyone's responsibility and cannot be left to the drive and motivation of one person.	8	45
	Careers is a lonely position, there is a lack of status and influence in school – takes strong personal conviction.	6	12
	Reaching out to the wider community 'is the best thing we did'.	5	22
The importance of connecting with nature in and outside of the curriculum.	External factors are seeping into the consciousness of career practitioners.	3	10
	Fostering empathy and connectedness to nature needs to start early (pre-secondary).	7	20
	'So much to learn from each other and nature' - creativity in green career education is to be celebrated.	6	14
	Young people need explicit support and experiences to make the connections between nature and careers.	8	12

**Table 2: Final 'thematic map' linking findings to five themes**

## Greenwashing or a conduit for ecojustice?

All participants agree with Hooley that career education and guidance should have a key role to play in helping people navigate the transformations in the labour market which will be the 'consequence of the transition to net zero' (2021). 'We are at the point now where we've got to have these huge conversations' and 'it is important, so they are prepared' (Carole). Sara looked at this from a broader perspective and felt the 'world of work depends on it'.

However, a recurring theme suggests there is a dearth of information coming into schools and lack of direction in how practitioners should be responding to the emerging green economy. The 'nebulous green language' is causing confusion, and the concern is that 'like other sectors there is a risk of greenwashing in careers because of this confusion and "green" becoming nothing more than the latest buzzword' (Linda).

Climate change is impacting on lives with the more vulnerable, particularly girls and women (Hooley, 2022) being most impacted. Hooley advocates for green career education and guidance to embrace the broader concepts of ecojustice. However, these connections between ecojustice and careers can struggle to gain traction according to Irving and Malik (2019) because of other pressing priorities and responsibilities in schools making this 'just one more thing' (Ann).

## Wrestling with green guidance and remaining ethical.

Practitioners acknowledged that career development does not happen in a vacuum and the changing climate, environmental, digital, and economic contexts are real and happening. 'You would not ignore the change in digital and AI context so why would you ignore the changing climate and environmental context' (Fiona). All practitioners regarded their guidance practice as non-directive, respecting the rights of the young person to arrive at their own decisions, focusing on the individual and adhering to the CDI code of ethics. Therefore, most participants would only explore green pathways/roles if the young person took the lead, and they are most likely to signpost to traditional green sectors. 'I worry about impartiality. Shoehorning green careers into conversations does not sit well with my CDI ethics' (Sara), and there is a nervousness about imposing one's values on a guidance conversation. However, two participants talked about the distinctions between 'dark' and 'light' green jobs and 'ultimately all jobs will have a green dimension' (Linda). They believe green career guidance is 'far more than signposting green jobs' (Carole) and referred to the importance of 'linking career choices and planetary health'.

Hooley (2021) encourages practitioners to raise questions in guidance regarding the impacts of climate change on the labour market and raise awareness of the eco-injustice of the impacts of climate change. Asking moral and skills questions of LMI will help young people have a better understanding of the green credibility of the jobs and businesses they may apply for. This is similar to the critical realist approach to LMI suggested by Bimrose (2020) and Staunton (2022). Currently, there is no evidence of this level of conversation happening within guidance, not because practitioners do not think this is important, they just do not think this is practicable within a 30-minute guidance meeting. It was unanimously expressed that with the limited time, budget, and status given to career guidance, tackling such profound concepts in guidance is unlikely.

One participant believed it is the responsibility of the career practitioner to educate themselves about climate change, carbon literacy and transformations to the labour



market. Knowing how to interrogate LMI to find the sustainability credentials of businesses is a recommendation of Hooley (2021) and Plant (2021). However, participants all agreed this is difficult because of the lack of clarity and confusion around green terms and how information is presented or absent on websites.

Two participants voiced concerns that career sessions 'are more about the well-being of the young person' (Mary) and 'are more about safeguarding and checking in with students' (Ann). These participants could not see how a green dimension could be as important as these concerns. Nevertheless, the general consensus is that more information is needed on how to introduce a green dimension realistically and ethically to guidance interactions and 'there is a need for CPD to bring career practitioners up to speed' (Jane).

### **Green career education needs to precede guidance.**

Sustainability/environmental education is happening in the majority of schools within subject areas, but the understanding of all practitioners is that connections are not being made with career opportunities and career development. Carole believes 'young people do understand climate and environmental issues, but they are not making the connections with their own career decisions, and this is where green career education comes in'. Careers education is delivered as part of a Personal, Health and Social Education (PSHE) course in all of the schools, and the amount of time dedicated to careers education is typically three to four hours per year for each year group. The unanimous perception is this is 'woefully inadequate' (Ann). The lack of dedicated career education time, the 'packed full' subject curricula, and the emphasis on other pressing priorities, makes a green career education unlikely to happen without significant organisational and systemic shifts in emphasis.

Practitioners feel that young people are more likely to develop a green mindset if preconceptions and misconceptions are challenged in a green career education programme that precedes the guidance interview. In fact, 'it would be dangerous to introduce a green dimension in guidance without a steady and embedded green career education programme' (Sara), and 'where else in the curriculum is there opportunity to join the dots between green jobs, green economy, environmental sustainability, and career development' (Carole). Participants agreed with Plant (2021) that stereotypes and myths form at an early age, and this is where valuable work can happen to foster green values and skills and challenge preconceptions.

A preconception amongst young people is that green jobs are only associated with traditional green sectors and the only progression is through STEM subjects. Practitioners are concerned about the lack of diversity in STEM subjects and the impact this may have on interest in green roles. Practitioners agreed it was important for minority groups to 'see someone like themselves in green work, otherwise we are short-changing groups of society' (Ann). However, Mary feels that 'it is hard to arrange visits and work experience never mind in 'green' sectors and roles with an eye on diversity of representation'. Participants found the Green Careers Week (GCW, 2024) interesting, and two participants used the resources to run sessions with KS3 students. One participant took the opportunity to host a dedicated Green Careers Fair so students 'could see the pathways to green careers' (Carole). Traditional green sectors, 'light' green roles, less obvious companies who demonstrate strong green credentials, and local FE colleges who run courses with a sustainability element were invited.

Practitioners also believe it is hard for young people to make the connection between their green interests/values and their careers. Many young people see green interests as more of

a hobby and 'something I do rather than something I can be', and evidently a preconception amongst students and parents is that 'green jobs do not pay well and are for activists' (Fiona).

The importance of listening to student voice is a repeated theme. Four participants believe there is a 'groundswell of concern' about climate change and environmental degradation and the career profession has a responsibility to respond to this. Santilli et al. (2020) are advocates for helping young people to become active participants in their own futures and contribute to the wellbeing of their communities and planet. Maggi, (2021) suggests that if young people feel they have no control over a 'gloomy' future they are more likely to disinvest in their education and future pathways.

Plant (2021) recommends changing the language used in career education and guidance to focus on the collective 'we' and 'us' to communicate a sense of purpose and a young person to feel part of the local and global community. Michel's (2017) Challenge Mindset offers a solution-focused approach to careers, beginning with the 'challenges' and what is important to the client. He believes this is more likely to help a young person face the challenges and embrace the opportunities that environmental and climate change may bring to their career choices.

### **Fostering a green ethos through green career education is everyone's responsibility**

The strongest sentiment is that it is everyone's responsibility within the school to establish a green ethos and 'cannot be left to the drive and motivations of one person'. Participants were confident talking about green career education, are excited about the creative possibilities and believe this is where a green ethos can be fostered. One participant felt that the Sustainability and Climate Change Strategy (DfE, 2022) was a good starting point. A green ethos in school can 'ripple out to families, who work in the community, go to different schools and colleges, have grandparents all of whom can be reached' (Carole).

Practitioners who talked about having an embedded green ethos within the school, worked in counties where there is a growing potential for traditional green jobs (wind, solar and nuclear), and/or they were coastal counties where the impacts of climate change are likely to be acutely affected. 'Coastal counties have great potential and therefore the labour market reflects this, and this is seeping into the consciousness of local career practitioners' (Fiona).

The findings showed that two participants are involved at senior leader and governor level and are instrumental in fostering a green ethos within the school, and four participants participate in local business and enterprise groups. They both felt that networking at the macro level was having an impact on the relationships between business, school, and councils, and was improving their understanding of the sustainability perspectives and green initiatives in their local area. 'Involving the local business community, having a proactive county and using the local press to celebrate the school's green initiatives has been invaluable. Reaching out to the wider community is the best thing we did' (Carole) and there has been a noticeable increase in the number of young people enquiring about pathways into green sectors and roles. Having a voice and influence at the meso and macro level is one of Hooley et al. (2021) 'Five Signposts' to socially just career guidance.

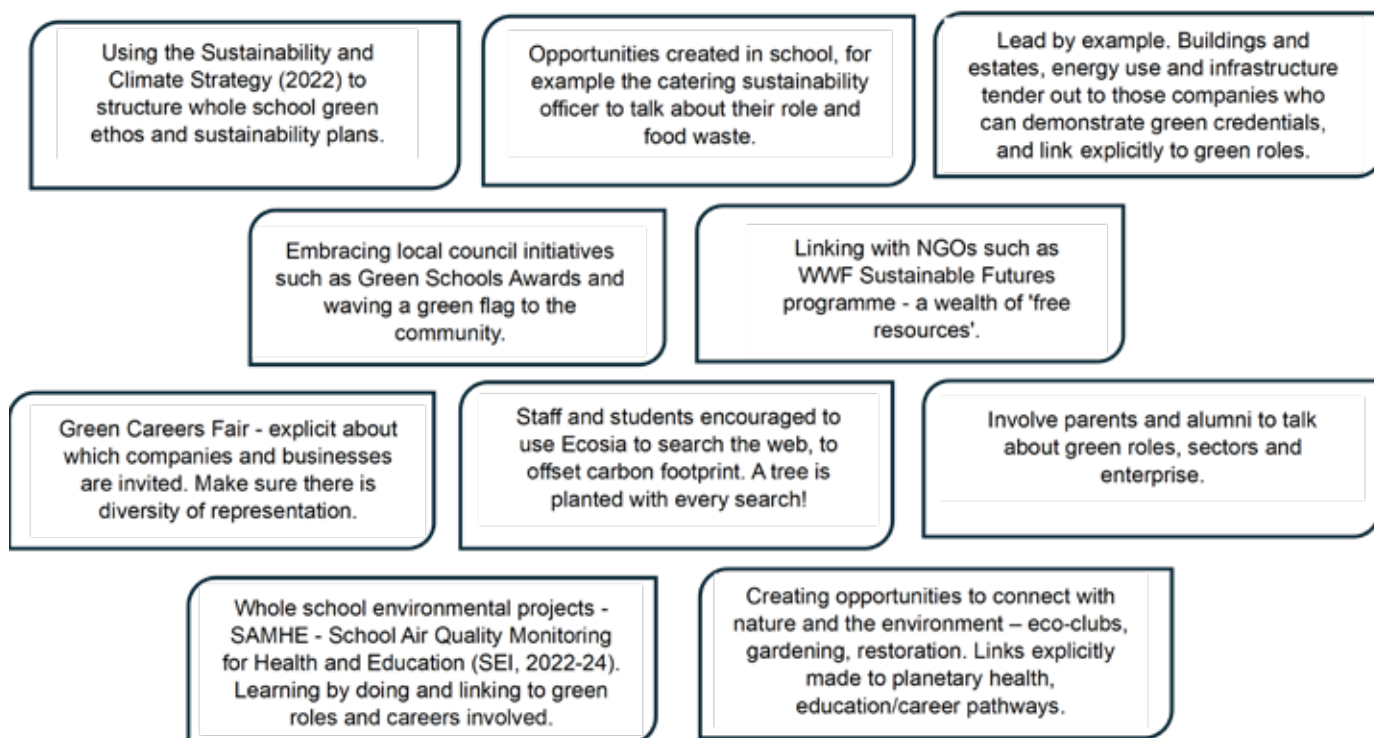
However, six participants felt that a significant inhibitor for developing a whole school green ethos is the lonely position of careers and the lack of status and influence within the school. They feel that prerequisites are for careers to have status in the school, backing of the headteacher and governors, time to provide CPD for staff, and a strong green personal conviction of the career practitioner.

## The importance of connecting with nature in and outside the curriculum

There are a plethora of papers and theories relating to the significance of fostering empathy and a green mindset through connecting with nature, and the receptiveness of young people to green roles. This included the research of Di Fabio and Bucci (2016) who suggest that empathy can be learned through spending time in nature, and Santilli et al. (2020) who advocate for a sustainability education programme to raise awareness. Practitioners all believed that young people need explicit support and experiences to help make these connections.

The findings suggest that since COP27 (UN/COP, 2022) and the Green Careers Weeks, all schools have seen an increase in the number of nature-based activities in school, particularly in primary school. There were strong views that green awareness and connectedness to nature and community needs to start early because 'beliefs, values, and attitudes start early'. There was enthusiasm for the ecologism incorporated into primary school activities and the opportunities to use the school grounds for exploring and connecting with nature.

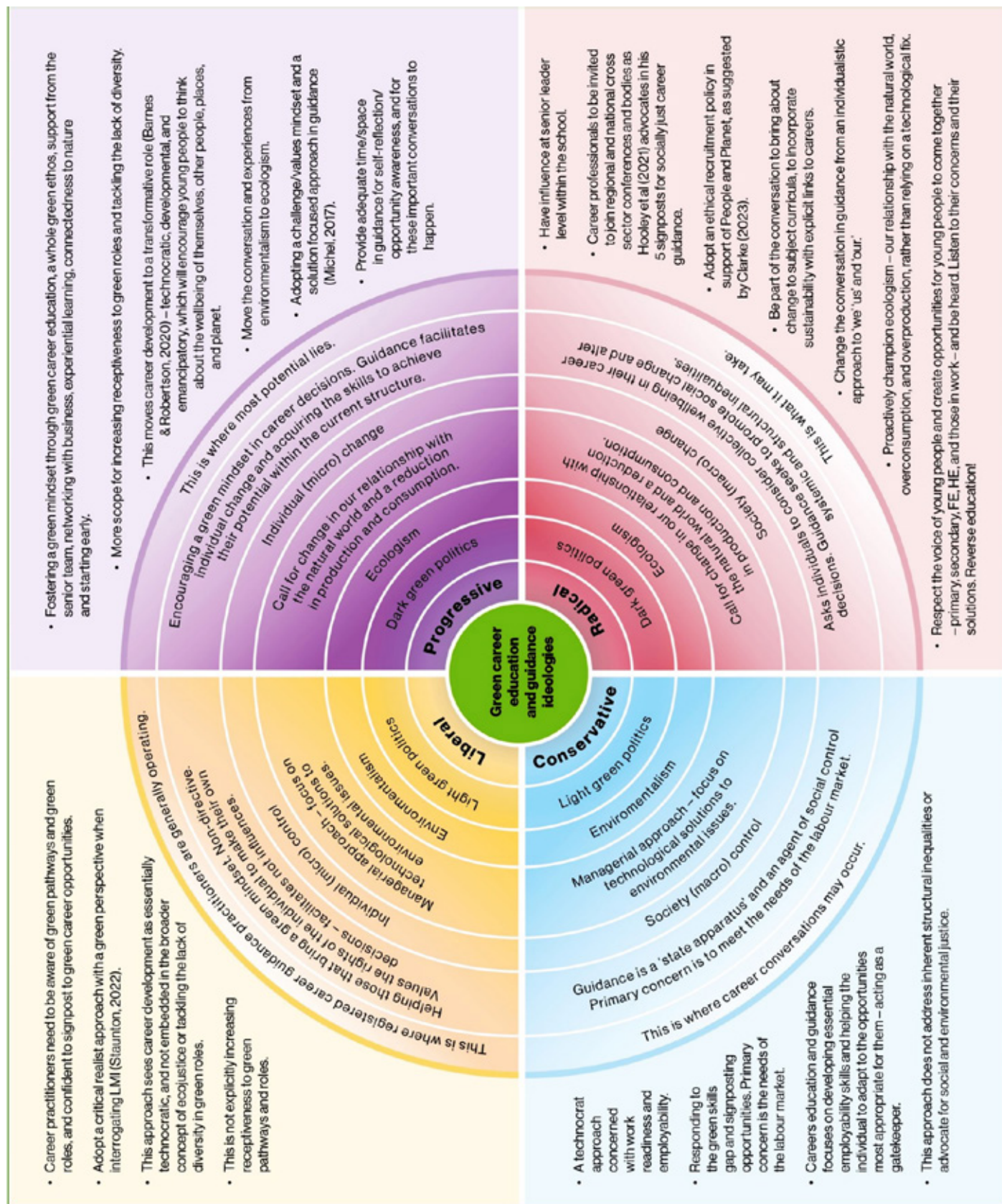
From the conversations, it is clear practitioners are searching for creative ways to bring a green dimension to their careers work and take every opportunity to link environmental and sustainability roles to career opportunities. Figure 1 provides some of the examples of the 'green' projects they have introduced.



**Figure 1. Examples of good practice from the experiences of the career practitioners.**

However, because of time constraints and pressures on the secondary school curriculum these opportunities tend to be extra-curricular and voluntary and therefore only reaching a small number of young people. There does appear to be a relationship between the extent of nature-based and environmental activities in school, and the number of young people expressing an interest in green pathways and careers, but there is 'a need to remove some of the pressures schools are battling, to create space to foster a genuine 'green culture' (Paula).

**Figure 2. A new green career education and guidance framework: a synthesis of existing literature and the research findings.**



## **A synthesis of existing literature and research findings: the emergence of a nascent green career education and guidance framework**

A new green career education and guidance framework has emerged from a synthesis of existing literature and the research findings. This visual representation (Figure 2) helps to clarify the complexities of Watts' ideologies (1996), Dobson's environmentalism/ecologism (2007) and the thoughts of Packer (2019). Academic theories and the perceptions and ideas of the participants (findings) are brought into one place, providing a comprehensive tool for practitioners.

The framework encourages practitioners to:

- reflect on their own ideological position and be reflexive of how their environmentalism/ecologism values could impact on guidance conversations and the content of the career education programme;
- use theories, approaches and practical tools to respond to different scenarios in guidance. For example, using a green critical realist approach to LMI with a student who expresses an interest in green roles, or using the Challenge Mindset cards to explore with students how their interests in climate and environmental issues may link to career opportunities; and
- bring a green dimension to a green career education programme drawing on different ideological positions.

However, further research is required to understand the value of the framework as a tool for practitioners and raises the possibilities for deductive research of the utility of the framework in practice.

## **Conclusion**

Plant (2020) suggests that green career education and guidance could be a new paradigm for career development and could provide an alternative to the prevailing 'neo-liberal and individualistic' approach to guidance. This article provides the empirical evidence of the understanding and experiences of career practitioners. The findings reflect frustrations. Participants are aware of the need to acknowledge the climate crisis, the emerging green economy, and the impact on the labour market. However, the lack of time, status and budget in secondary schools for career education and guidance is inhibiting attempts to respond to this changing context.

Participants acknowledged the importance of linking sustainable/environmental education with career education and providing the opportunity for young people to make the connection between green opportunities and their own career decision making. Fostering a green ethos, a receptiveness to green roles and the importance of reflecting on the environmental impacts of career decisions were recurring themes. Participants believe a green approach could improve the employability of young people, help them to be more reflexive of their career decisions, and contribute to tackling the green skills gap.

The question of ethics in guidance was a major concern. Participants could not see a way of conducting green career guidance, in the way academics are suggesting, and remain ethical. All participants were cognisant that the transition to net-zero and the emergence of a greener economy will bring challenges and opportunities for current school leavers,

and they owe it to their clients to be 'educated' and informed of the impacts this may have on the labour market. Ignoring the changing context is not an option if the careers profession is to remain relevant and connected with the 'groundswell of concern' voiced by young people. However, practitioners are asking how a green dimension can be brought to guidance conversations with young people and remain ethical. The development of the framework presented in this article hopefully provides a way forwards through these dilemmas for future practitioners seeking to green their careers education and guidance programmes.

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