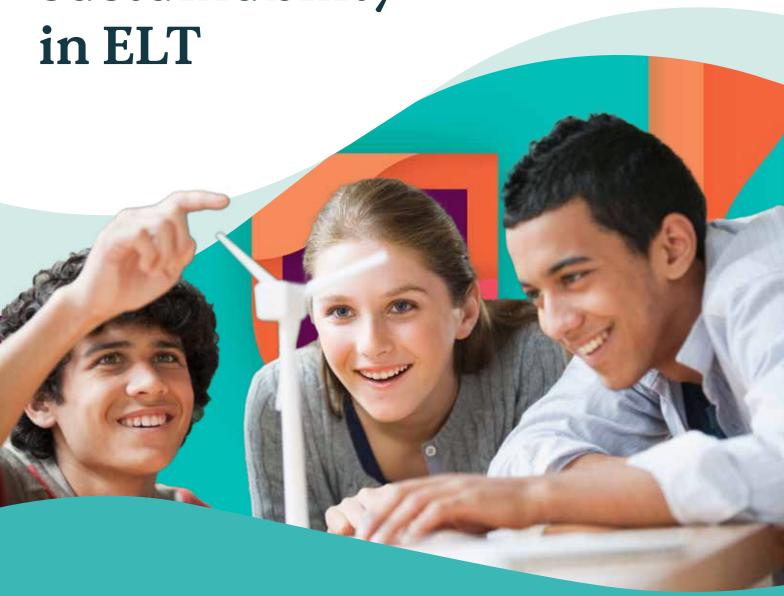




Sustainability



## **Contents**

- 03 If not now, when?
- **05** Relevance in education
- **06** Key points in brief
- **07** The role of ELT in sustainability
- **08** Terminology
- **10** Research and frameworks
- **14** Key skills and competencies
- Requirements for embedding sustainability in education
- 17 Conclusion: practical implications for ELT
- 19 References and further reading



## If not now, when?

Dialogues about the human, social, economic, and environmental aspects of sustainability are taking place everywhere right now: in the media, in the street, online, in workplaces, and in classrooms in every corner of the world. This should come as no surprise. Calls for action from influential bodies such as NGOs headed by the World Wildlife Fund (WWF), Greenpeace, the United Nations - especially its I7 SDGs (Sustainable Development Goals) and COP26 - research and academic organisations, and citizen-led mass social change movements, are being heard. With each passing year, the sense of urgency underlying the need for meaningful transformation is increasingly palpable.

Education often lags behind other sectors when it comes to change and the implementation of new systems. However, as this focus on sustainability becomes accepted at governmental and institutional levels and more visible within local and global communities, learners of all ages and at all levels are

becoming involved and educators are striving to bring sustainability into the classroom. An analysis of the literature reveals that a lot is being done to teach sustainability:

- Universities, including the Arizona State
   University, are providing resources on their
   websites for teachers to download and use
   with classes across all disciplines (Arizona State
   University, 2022);
- Organisations are increasingly publishing sustainability professional development courses to support teachers in different contexts. For example, The European Schoolnet Academy created a free 'Terra Mission MOOC: Teaching Sustainability for Action' in 2022, to provide primary and secondary teachers across the region with training in how to 'raise environmental awareness in their schools and beyond' (European Schoolnet, 2022);



- Governments are taking action. For example in the UK, as part of the government's
   Sustainability and Climate Change strategy, by 2023, 'all teachers in all phases and subjects will have access to high-quality curriculum resources, so they can confidently choose those that will support the teaching of sustainability and climate change' (The Education Hub, 2022);
- People are conducting research in how to teach sustainability, drawing up manifestos and pledges, creating teaching resources, organising or taking part in professional development training courses for educators, forming action groups and transforming their own behaviour and that of others.

In this paper we examine work being done on sustainability in Education, including in ELT (English Language Teaching). We consider areas of knowledge that need to be taught, skills that need to be developed, approaches that need to be taken and content that needs to be covered in curricula. We also share suggestions into how stakeholders can contribute to the successful teaching of sustainability in ELT.

We also examine key terminology used in the discussion of sustainability, some of which is new or has been repurposed. There is some ambiguity and overlap in how terms are being used, with the term 'sustainability' itself being a good example. In both education and wider society, the term 'sustainability' is most typically associated with environmental issues. However, far from being limited to this one aspect, sustainability also encompasses social and economic factors, and these three elements are intrinsically interrelated. As noted by Hickman et al. (2021), 'Planetary health is not separate to human wellbeing. The two are intricately intertwined.'

In the interest of providing a definition that is readily comprehensible to teachers and their learners, this paper uses the following definition for the purposes of discussing sustainability in ELT:

Sustainability includes the knowledge, skills and attitudes we need in order to ensure a fairer, brighter future for people and the natural world.



## Relevance in education

Professor Stephen Sterling (2021) writes about the need to create an 'ecological re-imagining of education' and reminds us that fifty years have passed since the United Nation's Conference on the Environment in Stockholm (1972) in which they recognized that education had a critical role to play in 'achieving environmental and ethical awareness' (Sterling, 2021).

Of particular relevance to sustainability in education is the UN's SDG 4, Quality Education. It is broken down into ten distinct targets with 4.7 focusing on Education for sustainable development and global citizenship which specifically refers to the need to equip learners with the skills they need to:

'promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.' (United Nations, 2022).

Some progress has been made towards this target since 2015, with the number of countries reporting on the consultation for the global indicator for target 4.7 increasing to 83 from 57 in the previous review (Schugurensky, 2018). However, according to the UNESCO's GEM (Global Education Monitoring) report of 2017, significant work still needs to be done (UNESCO, 2017). In his article in The Global Commons Review, Schugurensky (2018) highlights the 4.7 target from the perspective of teacher education, stating that many countries have very limited content on sustainable development in initial and in-service teacher training programmes. While acknowledging that some courses have started to include a sustainability focus, 'efforts tend to be fragmented and contingent upon the interest and creativity of individual teachers'.

## Key points in brief

The literature on sustainability in education reveals a number of key points which are summarised here and will be explored in more detail in this paper.

- Sustainability needs to be applied to all disciplines. Therefore, it should be embedded throughout curricula (Barkway & Mai, 2022).
- There is a lack of consensus on some key terminology related to sustainability issues. If this is not addressed, it risks hindering attempts to reach agreement on which key skills need to be highlighted.
- Eco-anxiety is a common and increasing issue for learners of all ages and educators can address this by adopting a pedagogy which fosters hope, agency and empowerment.

- Many institutions and organisations have started creating frameworks for developing sustainability skills for the specific contexts in which they work. While there are some differences between these frameworks, a lot of overlap exists. These can be seen as common core skills which cross contextual boundaries.
- Currently there is a disconnect between key stakeholders in sustainability education.
   Leaders, businesses and educators need to work together to identify skills that will be needed in every sector for visioning and building a more sustainable future.
- We need a dual focus on sustainability in education, with training in place for educators in: (i) sustainability in content, including curriculum design, learning materials, etc. and (ii) operational sustainability, including physical premises, digital footprint, etc.



## The role of ELT in sustainability

There are two main reasons why ELT is well positioned to address sustainability.

#### 1. Participation in global discussions

ELT professionals have a responsibility to equip learners with the language they need to take part in global discussions on themes of sustainability. A huge number of these discussions occur in English. As David Crystal wrote, 'Englishes are used in a multitude of contexts to express a diversity of views and narratives in global discourse, and are the medium for emerging ideas.' (Crystal, 2003).

#### 2. Development of key skills

English teachers are also equipping learners with the skills they need to flourish in life, whether at work or simply to be responsible citizens. The learners of today will be organising the systems within a more sustainable world tomorrow.

Some teachers and schools may be obliged to integrate sustainability through new legislation, be encouraged through buy-in from school leaders and parents, have funding to invest in this area or be limited in any or all of these areas.

Approaches to embedding sustainability must be appropriate to different local contexts and needs. In cases where it is not viable to introduce new materials, or where the syllabus is already saturated, it may be more appropriate to provide teacher support and activities that enable a focus on sustainability through observing, reflecting on, building on and responding creatively to existing resources.

Whatever the context, ELT provides a unique opportunity for sustainability to be woven through curricula, materials, assessments, and teacher training and professional development programmes, not only addressed discretely or as an afterthought. In this way, educators can help normalise a routine focus on sustainability, increase and improve opportunities for the development of necessary knowledge, skills and attitudes, and deepen learners' connection with English as a tool for sustainability.

## **Terminology**

#### The need for shared understanding

Understanding terminology in matters related to sustainability is essential. Consistency enables understanding and communication and prevents linguistic and cultural misunderstandings, but at times it may be necessary to acknowledge and understand differences in how terms are used in different contexts and cultures. New terminology is emerging at the same time as the concepts which they describe, and some concepts are specific to the cultures they come from. There are three important considerations regarding terminology:

- 1. There is a need to engage with new concepts and terminology.
- Consensus within any specific context needs to be reached on the meaning of key terminology and on which terminology should be used to describe a concept when several are in use.
- Clarification of cultural and context-specific terms needs to be made where there may be a lack of a suitable single term or consensus.

#### Key terms

#### Sustainability, green, regeneration

The term 'sustainability' can be understood and defined in a number of ways. In 1987 the United Nations defined it as 'meeting the needs of the present without compromising the ability of future generations to meet their own needs' (UN, 1987). The 17 SDGs have been drawn up with this definition in mind.

Some definitions, such as Wikipedia's, refer to three main dimensions or pillars: the environmental, economic and social dimension (Wikipedia contributors, 2022).

'Green' is often used interchangeably with 'sustainable', but 'green' only refers to protecting the natural environment, while 'sustainable' has a broader definition as seen above.

'Regeneration' is another concept which is becoming more visible. Recently, John Elkington suggested we consider working towards regeneration rather than sustainability, saying that 'sustain' implies keeping things the same, whereas by focusing on the regeneration of our economies, societies, and biosphere, we are able to go a step further than just restoring damages and to actually create better models (Goncalves, 2021).

### Eco-literacy, environmental literacy, ecological literacy

Unsurprisingly there is some confusion over the terms eco-literacy, environmental literacy and ecological literacy. In their article, 'Environmental literacy, ecological literacy, ecoliteracy: What do we mean and how did we get here?' McBride (2013) and his fellow researchers reviewed numerous proposed frameworks using the three terms in order to show the differences in meaning. They started by breaking down the terms to discover what it means to be eco-literate,

ecologically literate or environmentally literate.

Environmental literacy was first used in 1968 in a journal article which asked 'How shall we know the environmentally literate citizen?' The term has been widely used since, mostly within the field of environmental education. It is defined as being a concept which 'comprises an awareness of and concern about the environment and its associated problems, as well as the knowledge, skills, and motivations to work toward solutions of current problems and the prevention of new ones' (McBride et al., 2013).

Ecological literacy started being used in the 1980s within the field of ecology, the study of relationships within nature. Ecological literacy focuses on 'the key ecological knowledge necessary for informed decision-making, acquired through scientific inquiry and systems thinking' (McBride et al., 2013).

The term eco-literacy was first used in the 1990s by American educator David W. Orr and physicist Fritjof Capra to refer to a new educational criterion. The term is broader than 'ecological literacy' in that it goes beyond the field of ecology to embrace the humanities, focusing on 'the creation of sustainable human communities and society' (McBride et al., 2013).

#### Systems thinking

The term 'systems thinking' was coined in 1987 by Barry Richmond, writing about our increasingly interdependent world. There is no single definition of systems thinking but recent articles suggest that it cuts across all disciplines and is a valuable approach to exploring sustainability in education as it is 'critical in handling the complexity facing the world in the coming decades' (Arnold and Wade, 2015). As such, it is an invaluable skill to develop as it will help us understand issues of interconnectedness, where an action in one sector in one part of the world will have an impact on a different sector in another part of the world. Arnold and Wade (2015) point out that systems thinking is still on the 'education margins' precisely because of a lack of agreement in its definition. After analysing numerous definitions, they propose their own which could be used in several disciplines, including education:

'Systems thinking is a set of synergistic analytic skills used to improve the capability of identifying and understanding systems, predicting their behaviors, and devising modifications to them in order to produce desired effects.

These skills work together as a system.' (Arnold & Wade, 2015)

The Learning for Sustainability site states that 'Systems thinking is an approach to integration that is based on the belief that the component parts of a system will act differently when isolated from the system's environment or other parts of the system. Standing in contrast to positivist and reductionist thinking, systems thinking sets out to view systems in a holistic manner' (Learning for Sustainability, 2017).

#### **Eco-anxiety**

In 2017 the American Psychological Association (APA) described eco-anxiety as 'a chronic fear of environmental doom' (APA, 2017). While it is not listed as an official medical diagnosis, the APA have drawn up a list of recommendations to avoid ecoanxiety. They include trying to stay optimistic and encouraging a personal connection with nature both of which come up repeatedly in literature on sustainability education. It is also worth mentioning the work of lecturer, researcher and climate-aware psychotherapist, Caroline Hickman. Her research on 10,000 young people brought her to the conclusion that eco-anxiety is a perfectly natural and healthy response to the climate and ecological emergency that cannot be avoided. Instead, she suggests we find ways to support young people to deal with their feelings and to foster hope and agency. In this way, 'young people find a balance between acknowledging the climate crisis without letting it become overwhelming' (Lock, 2022).

## Research and frameworks

As public interest in sustainability has grown, so has a focus on research into sustainability education at local, regional, national and global levels. In this section we look at some examples of this research and, in particular at some frameworks that have emerged.

#### Shift Insight

In 2021, Shift Insight, a UK-based independent research consultancy, carried out research into teaching sustainability across the country. They conducted a survey with 52I educators from primary to tertiary education. The results showed that 50% of participating educators viewed teaching students about sustainability as some part of their wider educational role. While 85% of teachers think it is urgent to teach sustainability, 55% also believed they had not received adequate training in how to do so. The fact that only 52% had heard of the UN SDGs prior to completing the survey supports a call for more awareness raising and training, to include outputs such as this white paper. In their conclusions to the research, Shift acknowledge a 'gap between what educators want to achieve and the tools they are given to implement their beliefs' (Barkway and Mai, 2022). They also highlight the importance of addressing, 'environmental, economic and social challenges simultaneously to create a better and more sustainable planet'. Additionally, they highlighted that their research showed that a lot of work remains to be done to make sure that all three aspects of sustainability are addressed.

## 50% viewed teaching students about sustainability part of their role

\$5\%\text{ think it is urger sustainability}

#### Learning for the future: competences in Education for Sustainable Development

In 20II, the United Nations' Steering Committee on Education for Sustainable Development adopted a competencies-based framework for Education for Sustainable Development (UNECE, 20II). The framework has a holistic approach with four interlinked focuses:



The framework consists of three components: integrative thinking, inclusivity and dealing with complexities. The framework is understandably outdated now, and the number of competencies makes it unworkable in most contexts. However, the committee highlighted the fact that 'materials may



need to be developed to further support ESD' and that 'academic quality assurance instruments (e.g., school inspection, institutional and departmental reviews, external evaluations) should be underpinned by the Competences. This will mean that new and existing programmes and educational strategies should be informed by the Competences' (UNECE, 20II). While this specific framework might not be appropriate in the current times, these two points still hold true.

#### The Dundee Framework

In 2019, a group of researchers at the University of Dundee published a 'competency framework to assess and activate education for sustainable development' using the UN's Sustainability Goal 4, Quality Education, and in particular its target 4.7, Education for Sustainability, as a starting point (Giangrande et al., 2019). They based their framework on existing models of competencies, adding in the new skills that emerged as being important during their research. They mainly focused on four suites of competencies: intrapersonal, self-reflection, non-formal learning, and the specific requirements of SDG 4.7. The Framework proposes using Howard Gardner's (1983) multiple intelligences approach to learning combined with a strong focus on intrapersonal competencies and non-formal, community learning rather than within a formal class setting. It is classified according to 'key competencies' which are relevant across all sectors and aim to give the necessary skills to learners so that they can become:

- $\mathring{\mathbb{Q}}$  1 change agents
- $\mathring{\mathbb{Q}}$  2 problem solvers
- $\mathring{0}$  3 transition managers

The Dundee framework has seven Key Competency Areas:

	KEY COMPETENCY	EXAMPLE SKILLS	
	Intrapersonal	skills such as presencing and compassion (see more detail below)	
	Interpersonal	skills such as mediation and participation	
	Future thinking	skills such as intergenerational equity and recognising heritage	
	Systems thinking	skills such as working with complex problems and promoting resilience	
	Disciplinary and interdisciplinary	skills such as understanding the links between knowledge and experience and discipline-specific framing	
	Normative and cultural	skills such as ethical responsibility and understanding of justice	
	Strategic	skills such as decision making and addressing challenges	

On perceiving a paradox between learners' values and learners' behaviour, the researchers produced a list of intrapersonal competences that they believe should be taught in sustainability education:

- Presencing: The ability to stay present to your internal environment at the same time as engaging with your external environment.
- The ability to hold contradictory thoughts and feelings without having to resolve the contradictions.
- Knowledge of stress and how to know when you are stressed and what can help you to reduce it and avoid burnout.
- The ability to cultivate awareness; the skill to be present and out of that presence become aware of states of being beyond your rational mind.
- The knowledge and ability to find inner states of peace and compassion, for oneself and others.
- The ability to make meaning out of experience; and the ability to synthesise experience, models or frameworks, and feed back into previously unknown meta-perspectives.
- The ability to experience and deepen love and connection to yourself, other humans, and the non-human world.

(Giangrande et al., 2019)

## The European sustainability competence framework

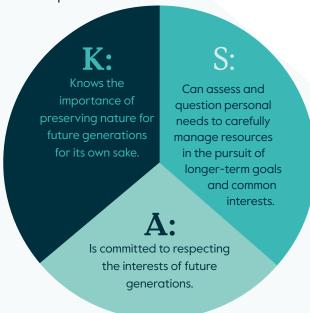
One of the policies set out in the European Union's 'Green Deal' to promote environmental sustainability was to develop a competence framework for educators. The result is GreenComp, a framework consisting of I2 competences organized into four interrelated areas.

- Embodying sustainability values: valuing sustainability; supporting fairness; promoting nature
- Embracing complexity in sustainability: systems thinking; critical thinking; problem framing
- Envisioning sustainable futures: futures literacy; adaptability; exploratory thinking
- Acting for sustainability: political agency; collective action; individual initiative

GreenComp's framework has a focus on encouraging learners to reflect on knowledge, assimilate it and then put it into practice. It includes descriptors for each competence and gives examples of knowledge (K), skills (S), and attitudes (A) that will be acquired and developed through the learning experience.

The descriptors are similar to 'can do' statements used in the Common European Framework of Reference (Council of Europe, 2001).

For example:



(Bianchi, Pisiotis & Cabrera Giraldez, 2022)

This kind of learning involves 'cognitive (head), psychomotor (hands) and affective (heart) domains'. GreenComp aims to 'foster a sustainability mindset by helping users develop the knowledge, skills and attitudes to think, plan and act with empathy, responsibility, and care for the planet.' It is designed as non-prescriptive, to be used as a reference tool for a number of purposes including curriculum design, teacher education, policy development and self-reflection. It is worth mentioning that while GreenComp focus on environmental sustainability, they reference the way it connects to society and the economy, 'Learning for environmental sustainability should empower individuals to think holistically and question the world-views underpinning our current economic system. At the same time, it should encourage them to take action individually and with others to transform our society and shape sustainable futures for everyone' (Bianchi, Pisiotis & Cabrera Giraldez, 2022).

Experts consulted during the research highlighted the need to make any pedagogical decisions on how to deliver sustainable education dependent on various context factors such as the age of the learners, and the environment within which the learning is taking place. It was also suggested that a whole-school approach, while presenting the obvious challenges that working across multiple disciplines entails, should be considered. This cross-curricular approach is repeated in other reports and articles. Section 2 of the QAA and Advance HE's 'Education for Sustainable Development Guide', published in 2021, discusses ways of implementing the practice of Sustainable Education and state that it is best achieved when ESD is positioned 'strategically and operationally across curricula' (Quality Assurance Agency, 2021).

### The ETUI green competence framework

In May 2022, the ETUI (European Trade Union Institute) published a report in which they compared the approach of the European sustainability competence framework with the ETUI green competence framework approach. This latter framework had been created two years earlier, and included the following five green competences which would enable workers to enjoy sustainable jobs for generations.

- 1. Collective competence
- 2. Prospective competence
- 3. Ethics and responsibility competence
- 4. Systemic competence
- 5. Competence in terms of change

While this framework has been written in relation to the workplace, it has a direct connection to sustainability education because it is here that the skills of future workers are being identified. The report recognised similarities in that both frameworks assume the need to place 'justice and equity at the heart of our societies' and suggest interconnected 'high level' competences which are made up of more focused competences (ETUI, 2022).

The main difference identified is that the ETUI framework is based on case studies while the European sustainability competence framework does not prescribe any particular pedagogy. Both frameworks have a European rather than global focus.

### ThoughtBox's 'Regenerating Education' framework

ThoughtBox is a social enterprise offering support to educators through a holistic approach to learning which embraces wellbeing practices in three distinct but interconnected areas, which are set out in their 'Regenerating Education framework' (ThoughtBox, 2022). All three areas are needed in order to address global and systemic challenges students face as they care for themselves, others and the planet they inhabit.



#### 1. Self-care

This strand focuses on growing emotional resilience. It includes competencies which focus on inner compass, self-awareness, self-compassion, autonomy and agency, and emotional intelligence.

#### 2. People-care

This strand focuses on restoring social equity. It includes competencies which focus on systems thinking, global and cultural awareness, empathy and compassion, collaborative problem solving and active listening.

#### 3. Earth-care

This strand focuses on revitalizing environmental wellbeing. It includes competencies which focus on appreciating interdependence, climate change awareness, re-connecting with nature, resilience and agency and regenerative practice.

The organisation identifies three groups of stakeholders: The students who are building their skills for a more sustainable future, the leaders and educators responsible for developing these skills and the systems partners who are in a position to bring about more awareness and policy change. While the framework identifies and focuses on key knowledge, skills and practices, it isn't as broad in terms of content as the other frameworks mentioned above and it does not specifically mention economic sustainability.

## Key skills and competencies

Some of the skills and competencies that are necessary for sustainability education are already recognised in ELT and education more broadly, such as collaboration, critical thinking or problemsolving. Others emerge as we consider the aims and objectives of sustainability education. These include things like, 'understanding our place in nature', 'systems thinking' and 'understanding agency'. When these skills are broken down into subskills, they overlap with broader life competencies. For example, 'identifying patterns and relationships' is inherent in both systems thinking and critical thinking. It is useful to classify skills into competency areas. This will make syllabus-writing easier, although there will inevitably be overlaps where a competency in one area might also work in another, depending on context.

In 2020 a report was commissioned by the Joint Research Centre (JRC), the European Commission's science and knowledge service. One of its main purposes was to examine existing sustainability competence frameworks in education. They produced a 73-page report which covers the 'what' and the 'how' of sustainability competencies (Bianchi, Pisiotis and Cabrera Giraldez, 2022). The first thing the researchers noticed was an ambiguity around terminology, so they decided to define those terms which were most important. First, they differentiated between two kinds of competencies:

- competencies in sustainability
- · key competencies in sustainability.

'Competencies' refer to 'the interlinked set of knowledge, skills, attitudes, and values that enable effective, embodied action in the world with respect to real-world sustainability problems, challenges, and opportunities, according to the context'. For example: critical thinking, communication, data management, research, etc. 'Key competencies' are multifunctional and are made up of several sustainability competencies that 'functionally relate to each other'. For example, these from the Brundiers framework (Brundiers, et al, 2020):

#### **Futures-thinking**

To be able to iterate and continuously refine one's own futures thinking (visions, scenarios, etc.), in productive and explicit tension to the status quo; recognizing the implicitly held (and largely unrecognized) assumptions about how society works and how they influence the status quo and critically reflecting how they might influence futures thinking.

#### Strategies-thinking

To be able to recognize the historical roots and embedded resilience of deliberate and unintended unsustainability and the barriers to change; to creatively plan innovative experiments to test strategies.

# Requirements for embedding sustainability in education

As is clear from the research cited in this paper, progress is being made towards bringing sustainability into learning contexts. A growing number of teacher conferences have talks and workshops on Sustainable Education and in some cases feature 'green' themes. Teachers are accessing resources with a focus on sustainability, such as the British Council's free publication, 'Climate action in language education: Activities for low resource classrooms', available to download from the Teaching English website (https://www.teachingenglish.org.uk/). However, there is still a long way to go. Educators need to start working more quickly if the important transformations that have been highlighted are to be made more efficiently and effectively.

#### Define 'learning context'

It's important we understand what is meant by the term 'learning context'. While traditionally we might have thought of formal education, of schools, universities, and Further Education colleges, in the case of sustainability, learning isn't restricted to the classroom. Stephen Sterling (2021) makes the point that we need to consider where education takes place and suggests that we should stop associating education with schools and universities and instead to broaden the term to include 'lifelong learning, nonformal education, and community education'. In doing so, sustainability will reach more people.

#### Work on curricula

It is often argued that sustainability should not be confined to a single or even several subjects, but instead should be present across curricula, in all disciplines. According to the Shift report, 'An understanding of sustainability is required across all subjects and disciplines if sustainable development is to be achieved' (Barkway & Mai, 2022). This is a big shift as the subject is currently 'stuck in the sciences'. In her article, 'The climate crisis, the curriculum and CPD', Heena Dave (2022) suggests that 'School leaders should enable teachers to explore the knowledge that underpins an environmental sustainability curriculum within their subject'. She uses the example of carbon dioxide, where the carbon cycle is taught in Science but where the history of carbon emissions could be taught in History. Dave goes on to suggest that teachers should engage in collaborations with partners outside their school, 'such as subject associations, local universities, community groups and charities to develop a deeper understanding of environmental issues explicitly within their subject's distinct discipline' (Dave, 2022). Changes need to be made to curricula in the state sector and the private sector, from primary through secondary, tertiary education and beyond. Before implementing these changes, learning objectives need to be drawn up to ensure that nothing is overlooked. This could be done by utilising a framework of sustainability skills which aligns with existing skills frameworks, a matrix extending outwards within and across disciplines.

## Consider how different groups of stakeholders can work together

Writing after the publication of the UK's Department for Education's draft Sustainability and Climate Change strategy, Heena Dave (2022) recognises that school leaders, teacher support groups and professional development are crucial in addressing environmental issues. While the task of implementing change in the education system is no easy task, Dave identifies three main tasks for school leaders:

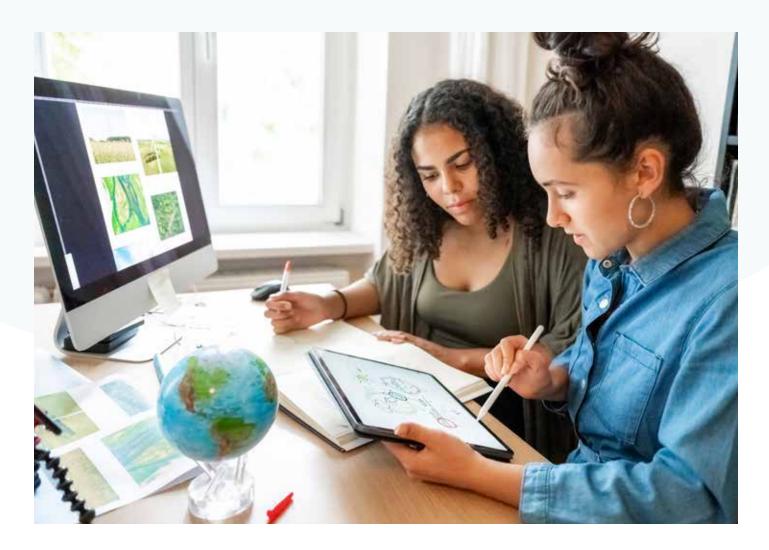
- To reflect on their own environmental responsibilities so as to be a model for others.
- 2. To draw up a sustainability plan for the school.
- To implement a curriculum which embeds sustainability across all subjects and at all levels.

Dave goes a step further than some, by suggesting that rather than drawing up a broad list of goals

which could prove difficult to attain, schools should instead choose one or two priority goals on which to concentrate their efforts, thereby pouring more energy into doing things efficiently and effectively in order to implement more impactful change. Dave also highlights the need for coordinated strategies across institutions and between key players, to avoid what she calls 'a patchwork of often unrelated environmental knowledge being taught' (Dave, 2022).

#### Teacher training and investment

For sustainability to be taught effectively, teachers need training and support at every stage of implementation. History has shown that when a new approach is implemented without strong and meaningful support, it inevitably fails. In this instance, we cannot afford to fail because we will not get a second chance. Training and support costs money so there needs to be investment from leaders and the world of business.



## Conclusion: practical implications for ELT

Sustainability education has the potential to motivate and engage English language learners. It's clear from research referenced in this paper that learners want sustainability to be included in their education, to learn how to deal with the challenges of today and of the future. English language teaching can leverage this – both to help motivate learners in their language learning through the inclusion of sustainability education, as well as through developing the skills needed to work towards a more sustainable future.

There are several practical implications for teachers and materials developers to take sustainability education from theory to practice in English language teaching and learning.

#### Sharing of applicable insights

There needs to be a link between research findings on sustainability in education and teaching practice. Publishers and institutions could share applicable insights through articles, webinars, teacher training workshops and other professional development projects.

#### A framework and toolkit

Teachers and materials developers need to be able to make informed decisions. An accessible and coherent framework for sustainability education, built on solid evidence-based foundations, would serve to support them in doing so. Any framework should include key competencies highlighted in research and be broken down into competencies and skills that can be selected according to context-driven criteria, and which can be applicable to learners of different ages and language levels.

In order to support application in the classroom, teachers and publishers would also benefit from

detailed descriptions of observable behaviours and example activities.

#### Training for teachers and school leaders

Training is key to the success of sustainability education. Teachers need access to and opportunities to engage with training in sustainability education. In turn, school leaders need to facilitate training, either by developing courses themselves or by drawing on existing expertise. Sustainability education training needs to become part of both initial and in-service professional development. Training should be skillsbased in addition to any knowledge-based elements. Teachers and school leaders need the opportunity to build their own sustainability skills and explore approaches in order to effectively support learners in their acquisition of sustainability skills relevant to their context.

School leaders also hold the key to enabling schools and school communities to develop a change mindset and encourage and facilitate innovation.

#### Wellbeing

In addition to focusing on sustainability in a positive and active manner, teachers may also need the support of their leadership, parents, school counsellors and other community professionals who can help learners to learn about sustainability and themselves in a positive way and to deal with natural feelings of anxiety arising from exploring sustainability issues.

#### Action research and collaboration

Teachers should engage in action research in their own classrooms to ensure the effective teaching and learning of sustainability skills. This may include trialling lessons and ideas, observing reactions and reflecting on practice.

Teachers need to collaborate with each other in different ways to learn together and from each other, such as by sharing insights from action research. Additionally, by forming groups with their colleagues across disciplines they will also be able to jointly implement a more effective cross-curricular approach to teaching sustainability. At the school curriculum level, a focus on sustainability in English language classes may compliment, support or even add to the wider curriculum.

By encouraging pedagogies which include systems thinking, educators and materials developers can also encourage learners to identify relationships between topics they are already studying and their wider environmental, social and economic impacts.

### Authenticity, engagement and project-based learning

Sustainability education in ELT can be incorporated through different approaches and can provide opportunities for learners to develop their knowledge, skills and attitudes through topic-led, project-based or challenge-based learning. Identifying and addressing sustainability issues can provide engaging experiences and extend the classroom into the school, local or global community, providing an arena in which learners can use their sustainability skills and English for a real-world purpose.

Where such activity may not fit into the standard curriculum, or where parental or cultural expectations may constrain the teaching of sustainability within the curriculum, extra-curricular clubs or societies may offer opportunities for learners to develop and extend their sustainability and English language skills.

#### **Multilingual approach**

Due to the cross-curricular nature of sustainability education, it is beneficial to take a multilingual approach when implementing it into English language teaching. Certain language and terms used in sustainability will be beyond the level of some learners, and so to ensure accessibility to the content it may be necessary to allow learners' LI in the classroom. Furthermore, in order to be able to engage in sustainability issues at a global and local level, learners will need to communicate in multiple languages.

#### Innovation in materials development

Contextualisation is key to sustainability education – content and ideas that are of relevance in one community, country or region may be less so or even problematic to explore in others. Materials writers should have an extensive understanding of the contexts they are writing for, and publishers should be working with end users to explore and innovate around content and approaches to sustainability in order to generate engagement and positive impact.

Materials developers need opportunities to engage with training, and publishers and institutions are best placed to provide such training. Work needs to be done on syllabus design to incorporate sustainability education at all levels for all contexts. Materials for learners and teachers should make explicit the skills that are being developed and related learning objectives, and provide opportunities to track progress towards these objectives.

There is much to be said on the subject of sustainability in English Language Teaching and one purpose of this white paper is to encourage further dialogue, research and action. Looking at Education in a broader sense, we can take a leaf from the UNESCO ESD website which was set up 'as a response to the urgent and dramatic challenges the planet faces.' They believe education will lead to 'empowerment through knowledge, skills and values to protect the planet'. (UNESCO, 2022). English Language Teaching is uniquely positioned to play a key role in this empowerment.

## References and further reading

American Psychological Association (2017) Mental Health and our Changing Climate: Impacts, Implications, and Guidance. Pp.68. Available at: https://www.apa.org/news/press/releases/2017/03/mental-health-climate.pdf (Accessed 29/07/2022)

Arizona State University (2022) Rob and Melani Walton Sustainability Solutions. Available at: https://sustainability-innovation.asu.edu/sustainabilitysolutions/programs/teachersacademy/teacher-resources/ (Accessed 29/07/2022)

Arnold, R.D. & Wade, J.P. (2015) 'A definition of systems thinking: A systems approach'. *Procedia Computer Science*, 44(44), pp.669–678. doi:10.1016/j.procs.2015.03.050

Barkway, T. & Mai, L. (2022) 'Teaching Sustainability', *Shift Insight* [online]. Available at: https://shift-sustainability.co.uk/wp-content/uploads/2022/03/Shift-Sustainability\_Teaching-Sustainbility-Whitepaper\_vI.pdf (Accessed 29/07/2022)

Bianchi, G., Pisiotis, U. & Cabrera Giraldez, M. (2022) 'GreenComp The European sustainability competence framework. [online] *JCR Publications Repository*. Available at: https://publications.jrc.ec.europa.eu/repository/handle/JRC128040 (Accessed 29/07/2022)

Brundiers, K., Barth, M., Cebrián, G., Cohen, M., Diaz, L., Doucette-Remington, S., Dripps, W., Habron, G., Harré, N., Jarchow, M., Losch, K., Michel, J., Mochizuki, Y., Rieckmann, M., Parnell, R., Walker, P. & Zint, M. (2020). 'Key competencies in sustainability in higher education—toward an agreed-upon reference framework', *Sustainability Science*, 16(1), pp.13–29. doi:10.1007/s11625-020-00838-2

Council of Europe (2001) Common European Framework of Reference for Languages: Learning, teaching, assessment. Cambridge: Cambridge University Press

Crystal, D. (2003) *English as a Global Language Second Edition*. Cambridge: Cambridge University Press

Dave, H. (2022) 'The climate crisis, the curriculum and CPD', *SecEd*. Available at: https://www.sec-ed.co.uk/best-practice/the-climate-crisis-the-curriculum-and-cpd-teacher-development-trust-schools-education-cop26-environment/ (Accessed 29/07/2022)

Elkington, J. (2018) in Goncalves, A. (2021) 'Sustainability isn't enough: here's why we need to regenerate' in *youmatter*. Available at: https://youmatter.world/en/regeneration-regenerative-design/ (Accessed 20/07/2022)

ETUI (2022) The European sustainability competence framework versus the ETUI green competence framework approach. Available at: https://www.etui.org/news/european-sustainability-competence-framework-versusetui-green-competence-framework-approach (Accessed 29/07/2022)

European Schoolnet (2022) *European Schoolnet*. Available at: http://www.eun.org/news/detail?articleld=7708904 (Accessed 29/07/2022)

Gardner, H. (1983) *Multiple Intelligences: New Horizons*. Basic Books: New York

Giangrande, N., White, R.M., East, M., Jackson, R., Clarke, T., Saloff Coste, M. & Penha-Lopes, G. (2019) 'A Competency Framework to Assess and Activate Education for Sustainable Development: Addressing the UN Sustainable Development Goals 4.7 Challenge, Sustainability II(IO): 2832. https://doi.org/I0.3390/suIII02832

Guterres, A. (2021) Secretary-General's statement on the IPCC Working Group I Report on the Physical Science Basis of the Sixth Assessment. Available at: https://www.un.org/sg/en/content/secretary-generals-statement-the-ipcc-working-group-I-report-the-physical-science-basis-of-the-sixth-assessment (Accessed 29/07/2022)

Hickman, C. et al. (2021) 'Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey'. *Lancet Planetary Health*. 5(12), pp 863-873. doi.org/10.1016/S2542-5196(21)00278-3

Learning for Sustainability (2017) *Systems Thinking*. Available at: https://learningforsustainability.net/systems-thinking/(Accessed 29/07/2022)

Lock, S. (2022) How can schools tackle eco-anxiety in young people? [Podcast]. 27 March 2022. Available at: https://www.tes.com/magazine/sponsored/greenpeace/how-can-schools-tackle-eco-anxiety-young-people

McBride, B.B., Brewer, C.A., Berkowitz, A.R. & Borrie, W.T. (2013) 'Environmental literacy, ecological literacy, ecoliteracy: What do we mean and how did we get here?' *Ecosphere*, 4(5). doi: doi:10.1890/es13-00075.1

Quality Assurance Agency (2021) Education for Sustainable Development Guidance. Available at: https://www.qaa. ac.uk/docs/qaa/guidance/education-for-sustainable-development-guidance-executive-summary.pdf (Accessed 29/07/2022)

Schugurensky, D. (2018) Global Citizenship Education and Target 4.7: the Challenging Road Toward 2030. Available at: https://www.globalcommonsreview.org/article-I5-global-citizenship-education-and-target-4-7-the-challenging-road-toward-2030.html (Accessed 29/07/2022)

Silva, M. (2022) 'Why is climate 'doomism' going viral – and who's fighting it?', *BBC News*, 23 May. Available at: https://www.bbc.co.uk/news/blogs-trending-6I495035 (Accessed 29/07/2022)

Sterling, S. (2021) Educating for the Future We Want. Available at: https://greattransition.org/gti-forum/pedagogy-transition-sterling (Accessed 29/07/2022)

The Education Hub (2022) The new Natural History GCSE and how we're leading the way in climate and sustainability education – your questions answered. Available at: https://educationhub.blog.gov.uk/2022/04/25/the-new-natural-history-gcse-and-how-were-leading-the-way-in-climate-and-sustainability-education-your-questions-answered/(Accessed 29/07/2022)

ThoughtBox (2022) The Learning Competencies Framework. Available at: https://staticl.squarespace.com/static/595caeca2e69cf0e4a940I0f/t/62da66ebf293a5I66fadad7c/I65848036940I/The+Learning+Framework.pdf (Accessed 29/07/2022)

UNECE (2011) Learning for the Future: Competences in Education for Sustainable Development. Available at: https://unece.org/fileadmin/DAM/env/esd/ESD\_Publications/Competences\_Publication.pdf (Accessed 29/07/2022)

UNESCO (2017) *Global Education Monitoring Report 2017/18*. Accountability in education: Meeting our commitments. Paris: Unesco

UNESCO (2022) Education for sustainable development. Available at: https://www.unesco.org/en/education/sustainable-development (Accessed 29/07/2022)

United Nations (1987) Report of the World Commission on Environment and Development: Our Common Future. Available at: http://www.un-documents.net/our-commonfuture.pdf (Accessed 29/07/2022)

United Nations (2022) Department of Economic and Social Affairs: Sustainable Development. Available at: https://sdgs.un.org/goals/goal4 (Accessed 29/07/2022)

Wikipedia contributors (2022) 'Sustainability'. In Wikipedia, *The Free Encyclopedia*. Available at: https://en.wikipedia.org/w/index.php?title=Sustainability&oldid=IIOI793O47 (Accessed 02/08/2022)



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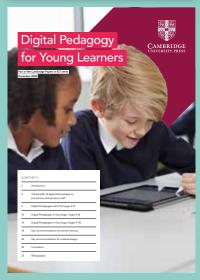
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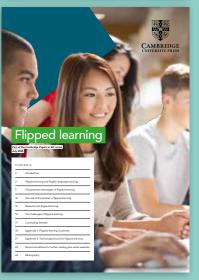
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