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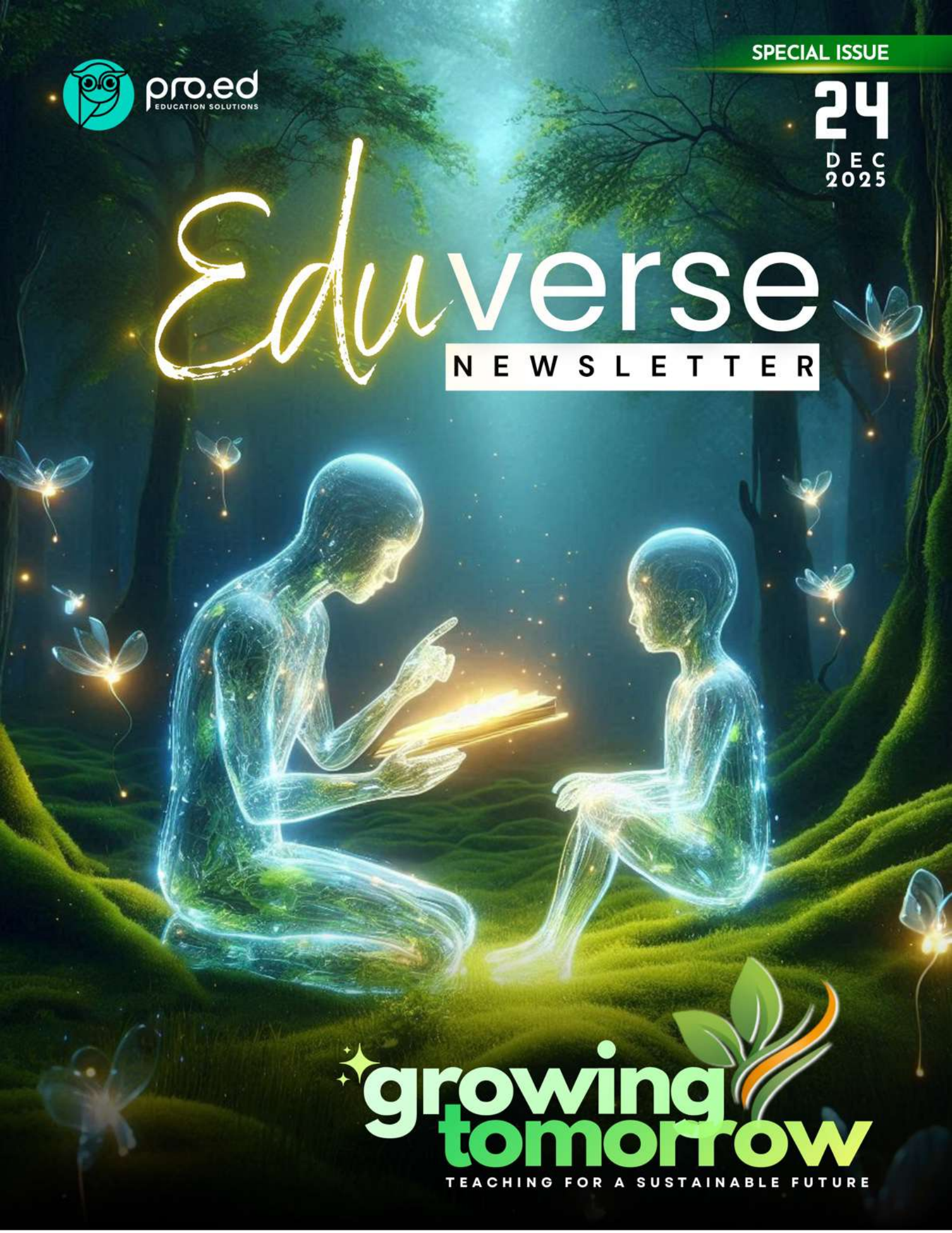

growing tomorrow

TEACHING FOR A SUSTAINABLE FUTURE

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FOR THE BETTERMENT OF ALL

"Education is the most powerful weapon which you can use to change the world."

Inspired and guided by the words of the world-famous iconic Nelson Mandela, Pro.Ed was borne of the belief that high quality educational expertise can transform a society for the better. We are obsessed with providing cutting edge educational services for our clients with the idea that they will bring out the best in their learners.
At Pro.Ed, we also believe that high-quality education is for everyone, not only for the privileged. Pro.Ed CSR activities offer frequent free of charge opportunities for all people to access the latest and most practical educational expertise to promote education equity and a culture of learning in society.

By providing a deep reservoir of educational expertise and experience, we aim **for the betterment of all.**

Eduverse
PD NETWORK

Welcome to EduVerse PD Network,
an initiative by Pro.Ed Education Solutions!

In this dynamic era of learning, staying ahead requires a constant thirst for knowledge and an openness to exploring new frontiers. That's why we created EduVerse PD Network, committed to offering valuable professional development resources for educators globally, our platform aids teachers in exploring educational trends, advancements, EdTech insights, and practical teaching tips—all at no cost.

With a dedicated focus on the needs and aspirations of educators, we curate a diverse range of best practices to support your teaching journey. From cutting-edge pedagogical strategies to engaging classroom activities, we are here to equip you with the tools and inspiration you need to ignite curiosity, foster creativity, and cultivate lifelong learners.

- *Editor-in-chief: Dr. Le Dinh Bao Quoc*
- *Content specialist: Nguyen Tran Phuong Uyen (Columns in charge: Teaching Techniques, Lesson of the Month, and Tech Tips and Tools)*
- *Designed by EduVerse Design team*

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LETTER FROM THE EDITORS

Dear Esteemed EduVerse Readers

There are moments in education when we are called not just to teach, but to reimagine, to pause, to breathe, and to ask ourselves: **What kind of future are we preparing our learners to build?** Today, as climate challenges, social inequalities, and rapid transformations shape our world, that question feels more urgent than ever. And so, with hope and conviction, we introduce this special edition of the EduVerse Newsletter: **Growing Tomorrow - Teaching for a Sustainable Future.**

This edition is dedicated to you - **teacher trainers, mentors, and learning leaders** who have chosen a noble task: to guide the guides, to plant the seeds in those who will shape future generations. You stand at the heart of change. Your vision, your questions, your courage to innovate: these are the roots from which sustainable futures grow. Yet, this journey does not belong to teacher trainers alone. It is shared with every **educator who enters a classroom** with curiosity and care, and with every member of the education community who believes that learning can shape a better world.

Whether you are guiding future teachers, inspiring young minds directly, supporting school initiatives, or shaping policy, your role matters deeply. Sustainability in education becomes a living reality when we work together, when teachers model lifelong learning, when school leaders nurture spaces where ideas can flourish, and when families, communities, and institutions join to foster responsibility, compassion, and possibility. Each voice, each action, each lesson carries power. Together, we are not only preparing learners for the future, we are actively building it.

In these pages, we explore sustainability not just as a topic to "add to the curriculum," but as a powerful mindset and way of being. **Sustainability in education means nurturing curiosity, compassion, responsibility, and action. It calls us to awaken in learners a sense of interconnectedness with themselves, with each other, and with the living world.**

We highlight the practices, perspectives, and pedagogies that empower teachers to:

- Foster systems thinking and real-world problem-solving
- Cultivate empathy, resilience, and global citizenship
- Encourage creativity, agency, and hopeful action
- Build learning environments rooted in justice and dignity

Our contributors, among whom we find educators, researchers, and visionaries, offer stories, tools, and reflections that illuminate what is possible when we teach with heart and purpose. They remind us that sustainability is not a lesson plan. It is a journey, a commitment, a daily choice to prepare learners not just to survive in the world, but to transform it. The ripple begins with you.

Thank you for your dedication, your imagination, and your unwavering belief in education as a force for good. May this issue inspire you, ground you, and remind you that every teaching moment you re-imagine moves us closer to the world our learners deserve, the future we must create.

Together, let us continue teaching with vision, leading with courage, and walking towards a future that is not only sustainable, but full of possibility, dignity, and hope.

HAPPY SHAPING THE FUTURE OF THE WORLD!

Marcela Villan - Special Guest Editor
Dr. Le Dinh Bao Quoc - Editor-in-Chief
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Happy Vietnamese Teacher's Day

November 20

In a world of instant answers,
teachers remain the ones who
inspire questions.
Thank you to all teachers
who continue to inspire
curiosity, courage, and
kindness in every learner.

Vietnam, 20.11.2025

WHAT WE MEAN BY SUSTAINABLE FUTURES

Marcela Villan Dr. Le Dinh Bao Quoc

In today's rapidly changing world, the idea of a sustainable future has never been more important. Yet, most people connect sustainability with just protecting the environment. This is far from accurate. It is also about fostering social well-being, economic fairness, ethical growth, and resilient communities. Sustainable futures require us to prepare learners not only to care for the planet, but also to act responsibly, innovate creatively, and make decisions that benefit society as a whole.

Education plays a pivotal role in shaping these futures. To make this concept concrete, we can explore **SUSTAINABLE** as a guiding framework for learning, living, and leading in ways that support ***people***, ***society***, and ***the environment.***

SUSTAI

Stewardship
Taking responsibility for protecting society, people, and the environment

Solutions
Creating practical and innovative responses to sustainability challenges

Action
Turning knowledge and ideas into tangible initiatives

Understanding
Grasping the connections between social, economic, and ecological systems

Teamwork
Collaborating effectively across communities, disciplines, and cultures

Inclusion
Ensuring all voices and perspectives are heard and valued

Nurturing

Supporting personal growth, resilience, and ethical development

Balance

Integrating environmental, social, and economic priorities harmoniously

Equity

Promoting fairness, justice, and equal opportunities for all

NABLE

Adaptability

Responding flexibly to changing environments and challenges

Leadership

Inspiring and guiding others to act for sustainable futures

SUSTAINABLE FRAMEWORK

Stewardship

Taking responsibility for protecting society, people, and the environment

Our young students are the seeds of a better tomorrow and are the leaders of what needs to be done today. Sustainable education empowers students to see themselves as active contributors to a shared future, where kindness, responsibility, and environmental stewardship go hand in hand. Learners have the power to act as caretakers of their communities and the planet, making thoughtful choices that protect resources and nurture long-term well-being.

Taking this idea to the classrooms, students might organise a local tree-planting day, not only restoring green spaces but also inviting other younger learners to join them. In doing so, they model ethical behaviour, mentorship, and a spirit of service. In another project, students might conduct a school-wide waste audit and implement a composting system, helping classmates understand circular practices and reduce their ecological footprint. Through such experiences, students learn that sustainability means caring for the Earth and for one another, building a more just, flourishing world for generations to come.

Understanding

Grasping the connections between social, economic, and ecological systems

One of the greatest skills we need to develop in students is the thinking skill in all its different forms. Systems Thinking is no doubt an essential skill for a sustainable future. When learners develop systems thinking, they recognise that every choice and action is connected, and that changes in one area create ripples across others. Through this lens, students move beyond isolated facts and begin to understand the complex relationships between social, economic, and environmental systems.

At school, learners might explore how unequal access to education influences employment opportunities, cycles of poverty, and long-term social mobility. They may also investigate how food choices affect personal health, community well-being, agricultural practices, and climate impact. By tracing these interconnections, students build the awareness and empathy needed to make informed decisions and to imagine and design more equitable, sustainable futures.

Solutions

Creating practical and innovative responses to sustainability challenges

Learners focus on meaningful problem-solving, designing practical strategies that address real-world challenges in their schools, communities, and beyond. Sustainable learning encourages students not only to identify issues, but also to imagine solutions, test ideas, and reflect on their impact.

For example, students might reduce plastic waste by creating biodegradable packaging prototypes or launching a school-wide recycling and refill program. In another initiative, they could design a water-conservation campaign, install rain-collection barrels, or partner with local organizations to support clean-up days and awareness events. Through hands-on action, learners discover that they have agency, creativity, and responsibility in shaping a more sustainable world.

Teamwork

Collaborating effectively across communities, disciplines, and cultures

Learners learn to value different perspectives, combine strengths, and achieve shared sustainability goals when collaborating in real teamwork.

In the classroom, educators can create meaningful projects where collaboration becomes essential to succeed. Students can take on specific roles, practise active listening, and engage in collective problem-solving to build trust and shared responsibility. Co-developing group agreements and reflection routines helps them navigate challenges constructively and appreciate each team member's contribution. For example, a student team partners with a local business to design inclusive playgrounds for children with disabilities. Each learner brings unique skills by interviewing stakeholders, sketching ideas, planning budgets, demonstrating how working together not only deepens learning but also creates real, positive change in the community.

Action

Turning knowledge and ideas into tangible initiatives

Learners move beyond theory, taking deliberate steps to create measurable positive impact.

To bring action into the classroom, teachers can design learning experiences where students apply their knowledge to real-world needs. This may involve project planning, prototyping solutions, reaching out to community partners, or organising awareness campaigns. Students learn to set goals, track progress, and reflect on the impact of their initiatives, strengthening both agency and responsibility. For example, students volunteer to organize literacy workshops for children in low-income neighborhoods, designing reading activities, collecting books, and tracking participation. Through hands-on action, learners see that their ideas matter and that their efforts can create meaningful change beyond school walls.

Inclusion

Ensuring all voices and perspectives are heard and valued

Learners cultivate fairness, social justice, and participation, making sustainability accessible to everyone.

To foster inclusion in the classroom, educators can intentionally design learning spaces where every voice is heard and valued. This means integrating diverse perspectives, adapting activities to different learning needs, and encouraging respectful dialogue about identity, equity, and access. Students collaborate across backgrounds, learning to appreciate differences as sources of strength. For example, an online youth leadership conference may include students from urban, rural, and indigenous communities to co-create solutions, ensuring that lived experiences shape collective action. At schools, similar approaches such as mixed-group projects, peer mentoring, and co-designed classroom agreements empower all learners to participate fully and contribute to a more just and inclusive future.

Nurturing

Supporting personal growth, resilience, and ethical development

Learners strengthen character, empathy, and responsibility, preparing to contribute thoughtfully to society.

To embed nurturing in the classroom, educators can create environments where emotional wellbeing, ethical reflection, and personal purpose are prioritised alongside academic growth. Opportunities for self-assessment, gratitude routines, and values-based discussions help students understand themselves and others more deeply. When learners feel seen, supported, and trusted, they build resilience and confidence to navigate challenges with integrity. Mentorship programs guide students in ethics and responsibility while integrating technology in their projects, encouraging thoughtful decision-making and responsible innovation. By nurturing character and empathy through guidance, reflection, and meaningful dialogue, schools prepare learners not only to excel, but to act with care and intention in their communities.

Adaptability

Responding flexibly to changing environments and challenges

Learners build resilience and creativity, ready to navigate uncertainty and embrace new opportunities.

To cultivate adaptability in the classroom, teachers can provide opportunities for students to work through ambiguity, revise plans, and explore multiple pathways to solutions. Encouraging experimentation, celebrating mistakes as learning opportunities, and incorporating scenario-based challenges help learners practise flexible thinking. Students might also take part in reflection cycles to evaluate what worked, what did not, and how to pivot effectively. For example, students learn to adjust a community garden plan after unexpected droughts or flooding, finding alternative solutions such as rainwater collection, drought-resistant plants, or raised-bed designs. Through these experiences, learners develop resilience, creativity, and confidence to thrive in an ever-changing world.

Balance

Integrating environmental, social, and economic priorities harmoniously

Learners practise judgment and moderation, seeking solutions that serve multiple needs without compromising any.

To foster balance in the classroom, educators can guide students to consider multiple dimensions of sustainability when making decisions: environmental, social, economic, and personal. Through debates, case studies, and project-based learning, learners explore trade-offs and practise choosing approaches that meet diverse needs without sacrificing wellbeing or equity. Reflection practices and workload planning help students understand balance in their own lives, too. For instance, a school implements programs that balance academic rigor with mental health support, extracurricular activities, and opportunities for student leadership, modelling a holistic approach to growth. By practising balance, students learn to pursue solutions that are both effective and humane.

LEADERSHIP

Inspiring and guiding others to act for sustainable futures

Learners take initiative, influence positively, and motivate communities towards collective change.

To strengthen leadership in the classroom, educators can provide opportunities for students to take initiative, make decisions, and inspire others towards meaningful action. This might include rotating leadership roles, co-designing class norms, or leading school-wide campaigns that connect learning with real-world impact. Students practise communication, empathy, and ethical judgment as they guide peers and collaborate across groups. For example, a student council launches a multi-pronged initiative combining recycling, community service, and skill-building workshops, demonstrating how leadership can mobilize diverse efforts for a shared purpose. By nurturing student voice and agency, schools empower young leaders who create positive change in their communities and beyond.

EQUITY

Promoting fairness, justice, and equal opportunities for all

Learners recognise and act on the need to remove barriers, ensuring everyone can thrive and participate.

To cultivate equity in the classroom, educators can create purposeful structures that ensure every learner feels valued, supported, and positioned to succeed. This means identifying and removing barriers, being academic, social or emotional, while offering tailored resources and inclusive learning practices. Students engage in dialogue about justice, learn to challenge bias, and advocate for fairness in their school and community. For example, a school implements scholarships and mentorships for students from marginalized communities, expanding access to growth and leadership opportunities. By grounding learning in equity, we prepare young people to build societies where everyone can participate, contribute, and flourish.

Marcela Villan is an experienced teacher of English from Argentina.She specializes in Education for Sustainable Development. She has presented widely on these issues at international conferences and events. With over 30 years experience, she has also served as coordinator, head of studies, examiner and is a teacher educator.

Le Dinh Bao Quoc, Ed.D., is an author and educator with over 20 years of experience in educational leadership across Vietnam and the region. He is the Founder & CEO of Pro.Ed Education Solutions, and Head of EduVerse, a global professional development network. He also created EDU361 Expo, the world's first 48-hour non-stop 3D virtual education conference with 120+ global speakers. His book *The Art and Science of ChatGPT in Education* explores AI's impact on learning, and in 2024 he was recognized by LinkedIn as a Top Voice in Educational Leadership.

FOUR KEY ASPECTS OF SUSTAINABLE EDUCATION

Every letter in the SUSTAINABLE framework represents a distinct aspect of sustainable education, which aligns closely with UNESCO's definition ofEducation for Sustainable Development: empowering learners with knowledge, skills, values, and attitudes to create a just, resilient, and thriving world.

The following pillars illustrate how Education for Sustainable Development nurtures the whole learner: his heart, mind, and action:

Responsibility & Ethics

Learners develop moral responsibility, ethical awareness, and empathy. They act as caretakers of both people and the environment, reflecting UNESCO's emphasis on responsible action and ethical citizenship.

Knowledge & Understanding

Learners acquire critical knowledge and systems thinking skills, analysing social, economic, and ecological connections. They develop practical solutions to complex problems, reflecting UNESCO's focus on cognitive skills and sustainability literacy.

Action & Collaboration

Learners translate knowledge into meaningful actions, collaborate effectively, embrace diversity, and adapt to change. They seek balanced solutions that integrate social, economic, and environmental priorities, reflecting UNESCO's emphasis on collective action and problem-solving.

Influence & Justice

Learners lead, advocate, and promote fairness, ensuring equal opportunities for all. They inspire communities towards sustainable change, reflecting UNESCO's goal of fostering a just society and responsible global citizenship.

In essence, sustainable futures are not just a goal; they are a mindset. They require knowledge, values, skills, and action, all intertwined to create a world where people, society, and the environment can flourish together. Embedding these principles into education helps us empower the next generation to lead, innovate, and live responsibly in an interconnected world.

Sustainable futures are not just a goal; they are a mindset.

growing tomorrow

LOVE AS CURRICULUM

PLANTING SEEDS FOR A SUSTAINABLE TOMORROW

Dr. Le Dinh Bao Quoc

There are moments in a teacher's life that quietly rearrange the world. They do not come with fanfare or certificates. They come as a worn bracelet placed into your palm at the end of term, as a shy whisper that a child recognizes the scent of someone they've lost, as a single letter years later that begins, "Dear Teacher..."

These small, luminous moments are the soul-work of education. They are the reason we enter classrooms, stay late to mark papers, and return the next morning because we hope that what we do matters beyond the syllabus. Two stories: one fictional, one lived, remind us how much a single human response can ripple outward: the tale of Teddy and his teacher, and the life of Judge Frank Caprio, whose courtroom grace taught millions what mercy looks like in practice. Together they show that inclusivity is not a policy only; it is a posture of the heart, and that posture is essential if education is to be truly sustainable.

TEDDY HOW A TEACHER'S ATTENTION HEALS A LIFE

Imagine a classroom in December: paper chains on the windows, a hastily arranged tree in the corner, children trading small packages wrapped in bright paper. Among them sits Teddy, a boy whose uniform is frayed, whose hair is never quite combed, whose eyes often look away. He is the child teachers whisper about: "difficult," "unmotivated," "a trouble."

But one evening, when the teacher sits alone under the dim lamp, she opens his file. Page after page maps a story of loss: once a bright boy, then a home overshadowed by illness, then his mother's death, then the silence of grief that no adult had met with tenderness. Her heart aches. Suddenly, every incomplete assignment and every downcast look makes sense. In that moment, she feels the weight of responsibility: *What if I am the only adult who still believes in him?*

The next morning, she walks into class with new eyes. She greets Teddy first. She kneels beside his desk and asks if he needs help, instead of reprimanding him for unfinished work. When others laugh, she gently shields him with her presence. She praises every small effort, claps for him when no one else does. Slowly, almost imperceptibly, Teddy begins to meet her gaze. His hands raise a little higher. His test scores creep upward. More importantly, his spirit begins to reawaken.

On the last day before Christmas break, Teddy slips a small, battered paper bag across her desk. Inside: a bracelet missing a few beads, and a tiny bottle of perfume nearly empty. The boy's voice is barely audible: *"You smell like my mom."* The words pierce her heart. Tears gather in her eyes, but she smiles, fastening the bracelet to her wrist as though it were a crown. For the first time in years, Teddy sees an adult weep *for him*, not *at him*.

Years pass. Letters arrive. The first says he has graduated high school. The second shares his progress in college. The last is signed by a man whose name now carries letters M.D. and it thanks her for staying when others would have turned away.

This story is fictionalized, yet deeply true. Teachers around the world hold their own "Teddys." The moral is not only that one child was saved. It is that attention heals, and belief restores dignity. The teacher's heart- open, aching, yet steadfast- was the true curriculum.

Order the full story and other stories on Amazon

JUDGE FRANK CAPRIO

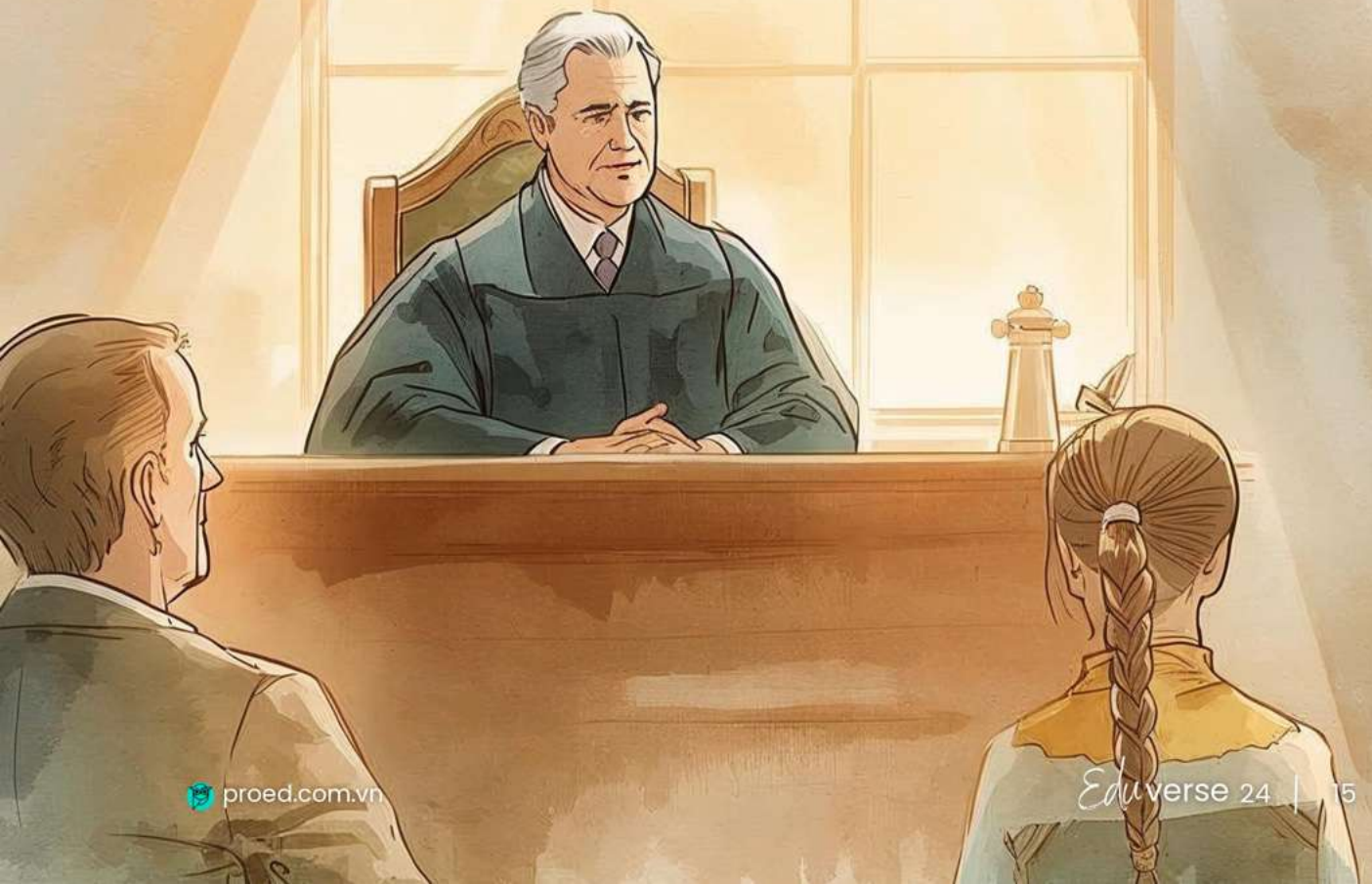
JUSTICE PRACTICED WITH HUMAN EYES

The world recently mourned the passing of Judge Frank Caprio, known as *"the kindest judge in the world."* Judge Caprio, whose viral videos in the TV show *Caught in Providence* showed a courtroom unlike any other, reminded us that *justice without love is incomplete*. Instead of cold judgment, he offered understanding. Instead of rigid punishment, he practiced fairness with compassion. Whether it was a struggling single mother, a nervous student, or an elderly citizen, Judge Caprio listened first and treated each person with dignity.

One case: a father stood before him, apologizing for speeding in a school zone. His young daughter stood beside him. Instead of a fine, Judge Caprio asked her: *"What do you think Daddy should pay?"* The little girl whispered nervously. The courtroom chuckled. Then Judge Caprio, with a warm smile, dismissed the fine. The father's eyes welled with gratitude; not for the money saved, but for being treated as a human being, not as a case number.

In another unforgettable case, a 96-year-old man admitted he had been driving too fast because he was rushing his son, who was battling cancer, to the hospital. The courtroom fell silent. Judge Caprio leaned forward, his voice tender and full of compassion: *"You're a good man. You really are what America is all about. Here you are in your 90's and you're still taking care of your family. That's just a wonderful thing for you."* The man's shoulders trembled. In that moment, the entire courtroom was hushed transformed by the quiet power of grace.

Millions around the world watched his rulings, and the reaction was nearly always the same: tears, smiles, and restored faith that justice can be merciful. His example is a direct lesson for educators, authority does not have to be cold. Rules can be upheld with warmth. The law of the classroom, like the law of the land, is strongest when it is tempered by love.



A man – Mr. Howard – appears in Judge Caprio's courtroom for a traffic violation. Caprio jokes that he looks like Samuel L. Jackson, lightening the mood. The man admits he can't afford to pay the $85 fine. He has no gas in his car and had to walk to court, though he has a job interview scheduled soon. Hearing this, Judge Caprio decides to dismiss the case entirely, wishing him luck and encouraging him to turn his life around.

Caprio then reflects to the audience:

There are some people who criticize me for being too lenient, and that's fine. Everyone's entitled to his own opinion, including me. And in my opinion, Mr. Howard deserved the break. How do I know he wasn't lying about not having enough money for gas and about his upcoming job interview? I don't.

But by choosing to assume the best about him, I'm also encouraging him to bring out the best in himself. Mr. Howard, I hope you got the job. I hope you were able to fill your car with gas. And I hope we don't see you back in court anytime soon. Good luck.

Judge Caprio's compassion shows that sometimes justice means offering grace, giving people dignity, and believing in their potential.

WHY THESE STORIES MATTER FOR SUSTAINABLE EDUCATION

We often speak of future skills: literacy, numeracy, digital fluency; but sustainability in education is not only about the environment or the economy. It is moral and relational as well. The United Nations' SDG4 calls for inclusive and equitable quality education; yet "inclusive" becomes shallow if it means only physical access to school. Real inclusion means belonging: learners feel safe enough to risk failure, to show pain, to ask questions. It means institutions that do not expel students emotionally.

Teddy's teacher chose belonging over blame. Judge Caprio chose empathy over automatic sanction. Both choices foster resilience, beng individual and collective. Children who feel seen learn better. Communities that practice mercy repair faster. Nations that educate with heart produce citizens capable of solving complex problems, not just because they are skilled, but because they care.

AND IN THE AGE OF AI... EVEN MORE URGENT

We now live in an AI-driven era. Algorithms are grading essays, chatbots are tutoring students, and data dashboards are predicting performance. These tools are powerful, but they cannot notice a trembling voice, or smell the grief hidden in a bottle of perfume. They cannot look into the eyes of a father explaining why he sped to the hospital. Machines can analyze, but only humans can empathize.

That is why love, compassion, and inclusivity are not old-fashioned values to be replaced by technology. They are the very qualities that must be amplified in the AI age. As more functions of teaching become automated, what remains most necessary, and most irreplaceable, is the human touch. A sustainable education system must teach not only knowledge and skills, but the deeper wisdom of how to be human in a machine-driven world.

TEACHING WITH LOVE AS PEDAGOGY

Love in the classroom is not sweetness or softness that neglects standards. It is rigorous care. It is insistence on potential while acknowledging pain. It is a pedagogy that recognizes emotions as data, clues to what the learner needs to grow.

When a teacher says, "I see you," it can sound simple. Yet that sentence opens neural pathways for learning. It lowers fear, invites curiosity, and creates bandwidth for cognition. That is why love is not optional for educators who want lasting impact. It is the condition that makes learning possible.

BRINGING INCLUSIVITY INTO THE CLASSROOM

The stories of Teddy's teacher and Judge Frank Caprio are inspiring, but how do we translate them into daily practice in schools and classrooms? Here are practical frameworks, each with clear steps that teachers can follow to weave compassion and inclusivity into their teaching.

1 PRACTICE COMPASSIONATE CURIOSITY

ASK "WHAT HAPPENED?" NOT "WHAT'S WRONG?"

Why it matters

Behavior often masks deeper needs. Curiosity invites a student to share their story without shame.

Steps:

- Set a private, calm moment. After class, say: "Can we talk privately for two minutes?" Avoid interrogating in front of peers.
- Open with curiosity, not accusation. Ask a gentle exploratory question. "Has something changed at home or with friends?" or "I noticed you seemed quiet today. I'm wondering what's been on your mind." Avoid leading or judgmental questions.
- Listen actively and validate feelings. Aim to listen for two or three minutes for every one minute you speak. Use nods, paraphrase: "So you're saying..." Say, "That sounds really hard" rather than "You should be okay." Validation reduces defensiveness.
- Offer small, immediate support. Document and follow up. Suggest a short check-innext day, a class adjustment (like changing group partners), or connect them to school counselor. Note the conversation in your private file and check in within a week: "How are you feeling since we last spoke?"

2 BALANCE FAIRNESS WITH FLEXIBILITY
JUSTICE WITH MERCY IN DAILY ROUTINES

Why it matters

Rules create safety; flexibility creates equity. The combination preserves standards while adapting to real-life complexity.

Steps:

- Clarify core expectations. Identify 2–3 non-negotiables such as respect, safety, submission deadlines.
- Create a "grace margin" and establish transparent procedures. Decide in advance a small buffer for late work or missed assignments (for example, 48-hour grace once per term) to use compassionately.
- Use consistent empathy checks. If a student uses the mercy margin, ask: "Is there support you need to meet future deadlines?" Offer solutions such as peer tutoring, adjusted workload.
- Keep equity in record-keeping and apply restorative practices after breaches. Track mercy uses to ensure fairness across students and avoid bias. When rules are broken, ask: Who was harmed? What repair can restore trust? Use short restorative conversations rather than punishment.
- Review policies with students. Once a term, invite student input: "Do our rules and mercy margins feel fair?"

3 FOSTER BELONGING
DESIGN CLASSROOM RITUALS THAT SAY "YOU BELONG"

Why it matters

Rituals create predictable safety and signal that every person matters.

Steps:

- Start with brief daily check-ins. Two-minute circle or journal prompt: "One word for how I feel today."
- Use inclusive seating strategies and create small-group anchor teams. Rotate seating so students work with diverse peers; avoid permanent exile seats. Assign groups that last a semester. Students learn to rely on each other.
- Celebrate small wins publicly and humbly. Share brief shout-outs for effort, not only results.
- Teach empathy routines and hold annual rituals of belonging. Model "I notice — I feel — I wonder" statements for classroom conversations. For example, if a student seems unusually quiet during a group activity, a teacher might say, "I notice you've been a bit quiet today, I feel concerned that you might be overwhelmed, and I wonder if there's anything you'd like to share or any way I can support you." This simple routine helps students feel seen, understood, and valued.

4 MODEL HUMANITY
LEAD WITH HUMILITY, NOT PERFECTION

Why it matters

Teachers' behaviors set norms. Showing vulnerability models resilience and authenticity.

Steps:

- Share a brief, age-appropriate personal story and practice visible repair. When you make a mistake, name it: "I missed that detail – thank you for pointing it out. I'll correct it." This models accountability. Once a month, tell a short moment when you struggled and what you learned.
- Use "we" language. Hold boundary-and-care duality. Be clear about expectations and simultaneously show warmth. For example, "Homework is due Friday; if a home emergency happens, tell me and we'll work it out."
- Demonstrate compassion scripts and celebrate others publicly. Model phrases like "Tell me more," "That must be hard," "What support would help?" Recognize students' civic actions or kindness outside class if you notice any (for example, when you see your student help an elder to cross the street).
- Care for your own well-being visibly. Let students see healthy adult practices (short breaks, asking for help), normalizing self-care.

5 LINK INCLUSION TO SUSTAINABILITY
TEACH THAT CARE FOR PEOPLE AND PLANET ARE CONNECTED

Why it matters

Sustainable futures require empathy; students must learn that caring for each other is part of caring for the earth.

Steps:

- Design interdisciplinary projects. Combine science (climate), civics (community action), and social-emotional learning (listening to community needs).
- Use place-based learning and incorporate service-learning. Start local: identify a neighborhood issue and ask students how social inclusion and environmental care intersect. Partner with local organisations for reciprocal projects – students help and reflect on impact.
- Teach systems thinking. Use simple causal-loop diagrams to show how human well-being, policy, and environment interact.
- Facilitate reflective debriefs. After projects, use structured reflection: What did we learn about people? About systems? How do the two connect?
- Highlight role models. Measure and share impact. Bring stories (like Caprio's compassion, local activists) that show justice and care as sustainable practices.
- Have students document social and environmental outcomes – stories, photos, short reports – and celebrate collective change.

A FINAL INVITATION

MAKE LOVE VISIBLE
MAKE JUSTICE TEACHABLE

The arc from Teddy's battered bracelet to a man's grateful letter is not merely a sentimental thread. It is evidence: small acts of attention compound. Judge Caprio's countless small mercies taught millions that dignity matters in civic life. These are not exceptions. They are examples of what schools can become when policies and people align toward inclusion.

> **Sustainable education grows when we teach skills and when we teach hearts. When we listen more than we react. When we balance rules with grace. When we design classrooms that say every day, through ritual and policy and practice: you belong here.**

If you are a teacher reading this in a classroom lull, try one tiny experiment tomorrow: a two-minute private check-in with one student you haven't "seen" lately. If you are an administrator, pilot a "grace margin" policy for a term and evaluate how it affects engagement. If you are a policymaker, fund programs that train teachers in compassionate inquiry and restorative practices.

The future we want to grow is not built only by clever curricula or digital platforms. It is built by people who notice each other, who repair harm, who judge with mercy, and who make room for the messy, beautiful human work of becoming. Plant one seed of compassion today, and watch how the classroom, the community, and maybe even the world begin to change.

Le Dinh Bao Quoc, Ed.D., is an author and educator with over 20 years of experience in educational leadership across Vietnam and the region. He is the Founder & CEO of Pro.Ed Education Solutions, and Head of EduVerse, a global professional development network. He also created EDU361 Expo, the world's first 48-hour non-stop 3D virtual education conference with 120+ global speakers. His book *The Art and Science of ChatGPT in Education* explores AI's impact on learning, and in 2024 he was recognized by LinkedIn as a Top Voice in Educational Leadership.

SPECIAL INTRO

PUBLICATION

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Education and climate change

Learning to act for people and planet

unesco | Global Education Monitoring Report | 13 CLIMATE ACTION | MECCE MONITORING AND EVALUATING CLIMATE COMMUNICATION AND EDUCATION PROJECT

Education and Climate Change: Learning to Act for People and Planet highlights how essential education is in addressing the climate crisis. The report urges a reimagining of educational practices—one that prioritizes social-emotional development and real-world action, rather than relying solely on conventional content delivery.

growing tomorrow
TEACHING FOR A SUSTAINABLE FUTURE

SITUATED SYLLABUS DESIGN: PREPARING FUTURE EDUCATORS FOR A SUSTAINABLE WORLD

Angelica María Rojas Isaza

As the philosopher Al-Farabi once said: ***"The purpose of knowledge is not only to know, but to act according to what one knows."*** In this sense, a situated syllabus bridges knowledge and action, helping future teachers move from theory into meaningful practice. Situated syllabus design anchors teaching and learning in the lived realities of students—their cultural, linguistic, and ecological contexts—while preparing them to engage with global challenges.

WHY
SITUATED DESIGN MATTERS

This approach also equips students with competencies that extend beyond the classroom. By engaging with local issues, they learn collaboration, adaptability, innovation, and critical thinking—skills increasingly valued in the workplace and essential for employability in a sustainable future. In my classes, for example, students have worked on projects related to local biodiversity and cultural practices in southern Colombia. What began as explorations of rivers, forests, and food traditions in their own communities soon expanded into broader questions about climate change, sustainability, and cultural resilience. By connecting their immediate environment to global debates, students realized that their local knowledge is not marginal but rather part of a shared planetary responsibility. Furthermore, when they engaged in intercultural exchanges with peers from other contexts, they saw how their lived realities contributed to conversations on global citizenship, equity, and sustainability.

When I first introduced the idea of situated syllabus design, I faced resistance. Many students were accustomed to standardized, prescriptive syllabi and expected a fixed set of readings, quizzes, and exams. They questioned why they needed to engage in projects tied to their local realities when a more "traditional" approach seemed easier. Yet, as they discovered how their work resonated with real community needs and global debates, resistance gradually turned into engagement. This tension became the starting point for a journey that reshaped not only their learning, but also my own understanding of teacher education.

Students in technology-enhanced courses perceived more relevance and engagement when activities were explicitly connected to their cultural and social environments.

SITUATED SYLLABUS
IN THEORY AND PRACTICE IN THE SOUTH OF COLOMBIA

Situated syllabus design is grounded in the broader notion of situated learning, which emphasizes that knowledge cannot be separated from context. A syllabus, then, becomes a dialogical and responsive tool that reflects both local realities and global competencies.

Research consistently highlights the value of this approach. Meyers and Lester (2013), for instance, found that teacher candidates engaged in community partnerships reported greater preparedness and competence because they applied theory directly in authentic contexts. Similarly, McNeil (2013) showed that students in technology-enhanced courses perceived more relevance and engagement when activities were explicitly connected to their cultural and social environments.

In southern Colombia, within the *Licenciatura en Lenguas Modernas* programs where I have worked, this approach has meant integrating biodiversity, indigenous knowledge, Afro-Colombian heritage, and local socio-cultural dynamics into English language teaching. Students have developed projects such as investigating regional environmental issues, designing lesson plans around cultural traditions, and linking these with discussions on global sustainability. These experiences have not only enriched language learning but also strengthened collaboration, adaptability, and problem-solving skills—competencies essential for employability in diverse and changing contexts.

The syllabi designed by tenth-semester students in the *Syllabus Design* course at Universidad del Cauca illustrate this shift. Each project reflects an attempt to apply the principles of situated syllabus design to real educational contexts, embedding cultural elements, local practices, and learner needs into the curricular framework. Beyond academic exercises, these syllabi represent students' efforts to challenge conventional formats and experiment with context-sensitive approaches that prioritize meaning, participation, and inclusivity. In doing so, they also prepare to engage with global citizenship, demonstrating how local realities—from biodiversity to cultural identity—are inseparably linked to worldwide debates on sustainability and intercultural dialogue.

Course Title: Visual French: Inclusive Language Learning for the Deaf Community
Level / Target Students: Beginner (A1–A2)

Context:
The syllabus has been created for an inclusive academic course in Santander de Quilichao, Cauca. The region is known for its cultural diversity, with strong Afro-Colombian and indigenous influences, which face educational challenges in terms of accessibility and inclusion, especially for people with hearing disabilities. This course is important because it promotes equal learning opportunities by incorporating visual and adaptive strategies that respond to the specific needs of students.

Rationale:

This introductory French course is designed for people with hearing disabilities to promote not only inclusive but also meaningful foreign language learning. Through visual and adaptive methodologies, participants will develop basic communication in French using sign language. They will also explore everyday topics such as personal introductions, daily routines, the environment, food, and traditional celebrations in French-speaking culture.

The importance of this course lies in its address of the need for inclusive educational opportunities for people with hearing disabilities in Santander de Quilichao, a municipality with rich cultural and social diversity. Learning a foreign language such as French increases opportunities for communication and employment.

Additionally, the curriculum takes into account local cultural and social aspects unique to the region. It includes elements related to the cultural identity of the municipality, which has Afro-descendant, indigenous, and mestizo communities. This approach seeks to connect the course topics with their everyday realities and experiences, thereby achieving meaningful learning that is respectful of the diversity found in Santander de Quilichao.

Sample of Situated Syllabus design by students from Universidad del Cauca, Colombia

Course Title: My Life, My English
Level / Target Students: Age from 13 to 15, level A1

Context:
The context of Vereda Las Rositas is important because students live in a rural area and do not have many technological resources. This makes it necessary to design activities that use what they have around them, like their community, nature, and daily life. It is relevant because it gives equal opportunities to rural students, makes English learning more connected to their reality, and helps them value their own culture while learning about others.

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1. Rationale / Justification

- Why is this syllabus important in this context?

  This syllabus focuses on English language teaching through a communicative approach where the topics and situations reflect real-life contexts.

- What local, cultural, or social aspects are considered?
  For this syllabus the students will be in touch with topics such as self-reflection, awareness of the world that surrounds them, including friends, family or the school itself, their community traditions and the students' dreams and plans for the future.

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2. General Objective

- By the end of the course students will be able to produce in English in a communicative way describing their personal life, school, traditions, and future aspirations in their rural context. Besides, students will be able to improve listening and speaking with activities connected to daily life in their village and comparing them with other cultures in order to learn.

Sample of Situated Syllabus design by students from Universidad del Cauca, Colombia

GLOBAL CITIZENSHIP
IN PRE-SERVICE TEACHER EDUCATION

Interaction with teacher Edwin J. Ortiz in his school in the U.S with University students from Universidad de la Amazonia, Colombia. Topic: Protecting the Amazon (Spanish class for 8th graders).

The outcomes are visible: teacher candidates demonstrate stronger critical thinking, intercultural awareness, and a deeper sense of responsibility toward both local and global challenges. They develop what Meyers and Lester (2013) describe as "authentic competence"—a blend of skills, values, and dispositions that emerges when learning is situated in lived realities. These include transferable skills highly valued in the professional world: the ability to collaborate effectively, adapt to uncertainty, design innovative solutions, and communicate across cultures.

Most importantly, this approach fosters a sustainability mindset. Pre-service teachers begin to see education not merely as instruction, but as a vehicle for social equity, environmental stewardship, and community empowerment. Through projects, technology, and reflection, they build the confidence to innovate and adapt. These skills prepare them to lead educational initiatives that are locally rooted in the rich biodiversity and cultures of southern Colombia, yet globally inspired by ecolinguistics and sustainable education. Moreover, overcoming initial resistance and curriculum constraints required negotiating flexible project guidelines and creating structured feedback opportunities—small adjustments that made the process both rigorous and motivating.

> ***Implementing a situated syllabus came with several challenges that required thoughtful adaptation and flexibility.***

CHALLENGES AND ADAPTATION

Implementing a situated syllabus came with several challenges that required thoughtful adaptation and flexibility. Initially, some students showed resistance, as they were more familiar with conventional, lecture-centered methods that emphasized passive learning over active engagement. To ease this transition, a phased approach was adopted—blending traditional classroom activities with community-based projects that gradually introduced learners to real-world contexts. This balance allowed students to recognize the relevance and authenticity of situated learning while maintaining a sense of structure and familiarity.

Institutional limitations further complicated implementation. Restricted contact hours and standardized assessment frameworks made it difficult to fully integrate experiential learning within the prescribed curriculum. To overcome these barriers, project outcomes were strategically mapped to existing learning objectives and assessment criteria, ensuring both compliance and innovation. Digital tools and online collaboration platforms were also utilized to extend learning opportunities beyond classroom boundaries, enabling students to document, reflect on, and share their experiences in more flexible and meaningful ways.

CULTIVATING TEACHERS FOR A LIVING WORLD

The experience of designing and implementing situated syllabi in southern Colombia demonstrates that teacher education can be both context-sensitive and globally relevant. When future educators learn to value their own cultural and ecological heritage while dialoguing with international perspectives, they acquire the tools to face the challenges of the twenty-first century.

A situated syllabus does more than prepare teachers—it transforms them into reflective agents of change. By grounding learning in lived experience, teachers cultivate awareness, empathy, and a sense of purpose that transcend academic boundaries. They begin to see education not as transmission, but as transformation; not as the delivery of content, but as the nurturing of connection.

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In a world where sustainability, diversity, and inclusion are no longer optional but essential, this approach reminds us that meaningful education starts where life happens. When teachers teach from context, for context, and with context, they are not just preparing students for the future —they are shaping a future that is worth living.

Angelica María Rojas Isaza is a Colombian educator and researcher currently pursuing a PhD in Education. With more than two decades of experience in teaching English as a foreign language, academic research, and teacher professional development, she has dedicated her career to advancing innovative and inclusive practices in education. Her work centers on curriculum design, educational innovation, and the integration of ICT tools to enrich learning environments. She has participated in national and international research projects and conferences, and remains committed to fostering pedagogical approaches that are inclusive, culturally grounded, and responsive to the diverse educational needs of Latin America.

ASK
THE EXPERTS

Welcome to **Ask the Experts**, the ultimate column dedicated to professional development in the field of education. In this dynamic and ever-evolving field, continuous growth and learning are paramount. In each issue, we explore the most commonly asked topic by interviewing invited experts for their insights, experiences, and strategies.

growing tomorrow
TEACHING FOR A SUSTAINABLE FUTURE

CULTIVATING SUSTAINABILITY OF MIND AND ACTION

With Marcela Villan & Patricia Bergström

EduVerse: Welcome to **Ask the Experts,** our exclusive interview series spotlighting changemakers shaping the future of learning. In this special ***Growing Tomorrow: Teaching for a Sustainable Future*** edition, we are honored to feature two outstanding global educators – **Marcela Villan** and **Patricia Bergström**. With decades of experience spanning countries, their work bridges classrooms, communities, and cultures, proving that sustainability is not only an environmental goal but a human one.

Marcela, a passionate advocate for the UN 2030 Agenda and TeachSDGs ambassador, has spent over 15 years championing environmental education and global citizenship through teacher training and international projects. Patricia, founder of Effective Learning for Life, draws on her lifelong commitment to intercultural understanding and motivation to help learners unlock their potential and build more peaceful, inclusive communities.

Together, they invite us to reimagine education not just as preparation for the future – but as the very act of growing a sustainable one.

PART 1 REFRAMING SUSTAINABILITY IN EDUCATION

1 Marcela and Patricia, welcome to EduVerse. To start us off, how do you each define Education for Sustainable Development in your own words — and why do you believe it's so central to the future of education?

For me, Education for Sustainable Development (ESD) is about helping learners understand how their choices and actions shape the world around them – socially, economically, and environmentally. It's about empowering them to make decisions that lead to a fairer, more sustainable future.

ESD is essential because our current global challenges – climate change, inequality, social fragmentation – require far more than facts. They demand new ways of thinking, acting, and living together. As described in SDG 4.7, education must prepare students to care, to collaborate, and to question how they can help build a better world.

SDG is the integration of sustainable development into everyday lessons and curricula so that students don't just learn about issues – they learn to become changemakers and caretakers of our planet. ESD weaves together different kinds of thinking: creative, analytical, systems, and critical thinking.

It's central for the future of education as well as being central for the future of those in education right now. By including ESD into schools, lessons become meaningful and knowledge becomes applicable. Classrooms are no longer confined to the "four walls" and students start realising that they are already part of the future and that what they do makes a difference. Much like a beach made of many grains of sand, our collective small efforts can create enormous change. Our students are the leaders, workers, innovators, and citizens of tomorrow — and their mindset is essential for the planet's future.

You both touch on a powerful idea — that sustainability is deeply personal and deeply shared. We often talk about sustainability as an environmental issue, but it's also deeply social and emotional. How can education help students see the interconnectedness between people, planet, and peace?

2

You're absolutely right. Sustainability is not only about the planet, it's also about people and peace. Education plays a key role in helping students see connections to realize that how we treat the environment is connected to how we treat one another. When students explore real-world issues through collaboration, empathy, and reflection, they begin to understand that caring for the planet also means caring for communities, for fairness, and for future generations.

By bringing together environmental, social, and emotional learning, education helps students develop both head and heart: the critical thinking to analyze problems, and the compassion to take meaningful action.

Sustainability connects everything — once we learn to see it this way. Through ESD students learn that what they think and do has a direct effect on people, animals and the environment. Take for instance a very typical scenario of someone throwing a plastic candy wrapper on the ground. The chances that the candy wrapper ends up in the sea is quite large, and once there, it is very probable that the candy wrapper gets eaten by a fish or a turtle that mistakes it for an algae or jelly fish. That fish might then end up being caught by a fisherman, who then sends it on to a factory to become fish fingers, and eventually we end up getting microplastics into our own system. Similarly, the same scenario could contribute to the ground becoming polluted and having an effect on the plants and trees in the area. Without plants and trees the oxygen level goes down, and there is less shade, making the temperature rise.

ESD helps students understand these connections while also developing empathy — for people, for animals, and for the environment. It gives them a sense of agency instead of helplessness. They stop being passive passengers and start becoming drivers of change.

And when it comes to peace, we can address this through SDG16 that deals directly with Peace, Justice and Strong Institutions, but we can also interweave it into the reflections we teach our students to make. What is peace? Peace with who or what? What is needed for peace to happen?

***Patricia Bergström** is a global citizen of Swedish origin based in the Canary Islands, dedicated to fostering collaboration, sustainability, and intercultural understanding for a more peaceful and informed world. Holding an MA in Modern Languages and TESOL, along with certifications in Neurolanguage Coaching, Emotional Intelligence, and Mindfulness, she brings nearly 27 years of experience as a teacher, trainer, speaker and leader. Active in the UN SDSN Global Schools Program as Project Officer for Alumni Relations, Patricia also serves on the Global Teachers Club board and as a Solutionary Coach for the Institute of Humane Education. She leads Effective Learning for Life, her own business specialising in Neurolanguage Coaching, leadership and personal development, and intercultural awareness coaching.*

3 **Many schools and teachers see sustainability as a subject rather than a mindset. In your experience, what shifts need to happen in schools to move from simply teaching about sustainability to living and practicing it every day?**

So true. Many schools still treat sustainability as a topic to cover, instead of a mindset to cultivate. The real shift happens when sustainability becomes part of the school culture, not just the curriculum. This means rethinking how we teach, how we use resources, and how we relate to one another.

Teachers can start by modelling sustainable thinking: asking reflective questions, promoting empathy, encouraging students to find local solutions, and making small, visible changes in daily routines. When sustainability becomes a shared set of values about care, connection, and responsibility, then it's truly lived, not just taught.

In my experience, the biggest threat to sustainability becoming a mindset, is time and lack of coherent knowledge about how to integrate it, rather than adding it to an already heavy teaching workload. Once teachers learn how to integrate ESD, they usually discover that it actually makes their lessons more motivating for them to teach, and more engaging for their students.

The challenge is that when sustainability is a separate subject or a standalone project, unfortunately, sustainability easily becomes a "tick-the-box" situation, that once ticked, people feel the job is done. It's like throwing the baby out with the bath water in a way. If we integrated sustainability on all levels, it would become the norm, the standard and the usual way of doing things.

4 **Speaking of integration, collaboration also plays a key role. Patricia, your background in motivation and intercultural learning adds another layer to sustainability. How can motivation and collaboration drive sustainable mindsets among students and teachers?**

When we learn about something that we find meaningful, our motivation increases. Our brains pay attention to what feels meaningful. When learning connects to real issues in students' lives – especially through the SDGs – motivation naturally rises.then this will increase their motivation to learn.

With today's technology, students can interact with other cultures and realities firsthand. That experience builds tolerance, empathy, and an understanding that different perspectives aren't necessarily wrong but simply different. So, motivation and collaboration can drive a sustainable mindset, but more importantly, I think a focus on integrating sustainability can lead to an increase in motivation and global, intercultural collaboration.

Marcela Villan *is a global educator and international speaker with more than three decades of experience as a teacher, examiner, coordinator, head of studies, and teacher educator. For over 20 years, she has specialized in Education for Sustainable Development (ESD), using the UN 2030 Agenda and the SDGs to integrate global issues into teaching and transform learning.*

She is a TeachSDGs Ambassador with Take Action Global (TAG), a Global Schools Advocate and Senior Mentor with the UN Sustainable Development Solutions Network (UNSDSN), and a Global Teachers' Club Board Member. Marcela also serves as a regional facilitator for the Institute for Humane Education (IHE) and collaborates with international organizations committed to advancing education worldwide.

5 And once students are motivated, the next step is helping them see themselves as active changemakers. How can educators inspire students to act as change agents – not just to understand global issues, but to feel empowered to make a difference in their communities?

I think the key is to move from awareness to agency. Students need to see that their voices matter and that even small actions can have real impact. Educators can inspire this by creating learning experiences that connect global issues to students' own lives and communities.

When students investigate real problems, collaborate on solutions, and reflect on the values behind their choices, they begin to see themselves as capable of shaping change. Our role as educators is not only to inform them about the world, but to help them believe they can make it better.

PART 2 APPLYING SUSTAINABILITY THE PRACTICAL PATH

6 Let's shift from the "why" to the "how." In your experience, how can ESD be adapted across different contexts – from urban to rural, public to private schools – without losing its essence?

I believe ESD is not a one-size-fits-all model. It's a mindset that can take different shapes depending on the context. In an urban school, it may mean rethinking consumption, waste, and the rhythm of city life. In a rural setting, it could mean valuing local knowledge, community practices, and connection with nature. What matters most is keeping the essence of ESD alive: developing critical thinking, empathy, and responsibility towards people and the planet. Schools become authentic, meaningful, and sustainable in itself.

> "ESD is not a one-size-fits-all model. It's a mindset that can take different shapes depending on the context.
>
> Marcela Villan

7 **Then, true sustainability goes beyond lesson plans. It's reflected in daily actions and shared values. What are some ways schools can cultivate a lasting mindset of responsibility, empathy, and long-term thinking among both teachers and students?**

Absolutely. Sustainability starts with who we are, not just what we teach. Schools can cultivate a lasting mindset by making values visible in everyday actions. This means modeling care: reducing waste, sharing resources, involving students in decisions, and celebrating acts of kindness and responsibility.

When teachers and students reflect together on how their choices affect others, they start to see that sustainability is a way of living, not a subject. Creating spaces for dialogue, collaboration, and gratitude helps everyone develop empathy and long-term thinking. It's in those daily moments – how we treat each other and our environment – that true education for sustainability happens.

Exactly, and I would add that the best way is to "walk the talk". There is no use for schools teaching about sustainability without embracing a sustainable focus in their vision, mission and values. Schools that do will achieve a long lasting mindset of responsibility, empathy and thinking skills. Schools that don't may achieve the odd person adopting the desirable mindset. If students see that the canteen composts organic waste and recycles their paper, plastic and glass, they are more likely to take these practices on. If the school encourages respect, compassion and empathy for all people in the institution, students are more likely to adopt these behaviours.

8 **True, but I notice a tendency that many schools treat sustainability as one-off projects like recycling drives or a tree-planting day. How can educators move from occasional activities to embedding sustainability as a living practice that shapes school culture and student identity?**

As you might know I am part of the Education Team at the UN SDSN Global Schools Program. Through this program, we train teachers to integrate sustainability into existing curricula. The program also requires or rather encourages, the trained teachers who have become Global School advocates, sharing the approach with senior leaders and colleagues.

At times, schools will really endorse the integration and even include it in their development plans, while at other times, schools might just allow the teachers to integrate ESD in their own classrooms. Whichever way, it is a very good first step to getting schools and colleagues to understand that sustainability is not an add-on, but a necessary ingredient in all areas.

If you start integrating ESD, and students start becoming very excited about your classes, other colleagues are bound to become curious, and that curiosity is your prompt to teach your colleagues how to do it. Change grows organically.

9 **What role does teacher training play in this process? How can we better prepare educators – emotionally, intellectually, and practically – to lead sustainability learning with confidence and creativity?**

Teacher training is absolutely central. We can't expect teachers to nurture sustainability mindsets in their students if they haven't experienced that kind of learning themselves. Training should go beyond theory. It should invite teachers to *feel*, *reflect*, and *reimagine* their own role as educators.

We need spaces where teachers can connect emotionally with the purpose of education, explore sustainability through real projects, and build confidence in creative, cross-curricular approaches. When teachers are supported not just intellectually but also emotionally, they rediscover their sense of agency and hope , and that's what truly inspires students.

10 **Finally, let's imagine the schools we aspire to build. What would a truly sustainable school — in both spirit and structure — look like to you?**

Ah, good question. A truly sustainable school would be one that lives its values. It would be a place where learning is connected to life, where empathy and responsibility are practised daily, and where every decision – from how energy is used to how people are treated – reflects care for both the planet and one another.

On the one hand, it would be a community rooted in trust, creativity, and shared purpose. On the other hand, it would encourage collaboration, student voice, and connection with the local environment. A sustainable school wouldn't just teach about a better world, it would model it every day.

To me, a truly sustainable school would be one that is sustainable on all levels: structurally, philosophically, educationally and economically. It would be a school that adheres to the "Most Good, Least Harm" principle (from the IHE Solutionary teachings) and that adds to the community, taking into consideration people, animals and the environment in all its decisions.

CLOSING THOUGHTS

Marcela, your work as a Global Educator and TeachSDGs Ambassador has inspired teachers around the world to make sustainability a lived practice. As we look ahead, what gives you the most hope about how education can continue to drive meaningful change for people and the planet?

What gives me the most hope? I think it's seeing how educators everywhere are reimagining what teaching and learning can be. More and more teachers are realizing that education is not just about knowledge, that it's about connection, empathy, and action. I see incredible creativity and courage in classrooms around the world: teachers helping students find their voices, collaborate across differences, and care deeply about the world they live in.

I'm hopeful because this movement is growing. It's driven by passion and not policies. When education is guided by compassion and purpose, it has the power to transform not only minds but also communities. And that, to me, is what must happen.

Patricia, your lifelong passion for motivation, learning, and human potential beautifully connects with the idea of sustainable growth. What final message would you share with educators and learners about cultivating a mindset that sustains both personal growth and global harmony?

I would end with some reflections:

- What would you like your students to remember from your classes?
- What values would you like your students to take away from your lessons and your presence?
- What would you like to remember and be proud of when you look back over your career?
- What type of person would you like to be remembered as?
- In what ways have you contributed to making the world a better place for people, animals and the environment up to now?
- What, if anything, would you change to make the answers to the previous questions more aligned with your values?

KEY TAKEAWAYS

- **ESD is a mindset, not a subject.** Sustainable education goes beyond environmental topics — it integrates critical thinking, empathy, and responsible action into every learning experience.
- **Everything is interconnected: people, planet, and peace.** Helping students see these connections empowers them to understand consequences, practice empathy, and act with purpose.
- **Sustainability must be lived, not just taught.** When schools model sustainable behaviors and values daily, students internalize them naturally.
- **Motivation grows when learning feels meaningful.** Real-world issues, cultural connections, and collaborative learning increase student engagement and agency.
- **School culture is the real driver of long-term change.** A consistent environment of care, respect, and responsible choices shapes habits more powerfully than isolated activities.
- **Teacher training is essential for ESD success.** Educators need support, reflection, and hands-on experience to confidently integrate sustainability into their teaching.
- **A sustainable school is aligned in philosophy, practice, and community impact.** It "walks the talk," ensuring that its choices benefit people, animals, and the environment while empowering students to build a better world.

growing tomorrow
TEACHING FOR A SUSTAINABLE FUTURE

TEACHING & LEARNING TODAY TO CHANGE TOMORROW

HOW CAN WE MAKE A DIFFERENCE?

Bernard Combes

Education is a fundamental human right, and it is essential for development. Everyone in the world would like a better life for themselves and their children, and education makes a difference; it can help people work together to find new solutions to their problems, can lead to new opportunities, and can give a chance to change things for the better. It is also crucial in creating an active and responsible citizenry better prepared to face global sustainability challenges and to contribute to sustainable development. Education is shaped by a range of perspectives from all fields of human development, including the acute challenges the world faces, which we need to integrate into learning situations.

WHY EDUCATION MATTERS
FOR A SUSTAINABLE FUTURE

Education for Sustainable Development (ESD) lies at the heart of the quest to solve the problems threatening our collective future – problems such as poverty, nutrition, wasteful consumption, environmental degradation, global warming, urban decay, inordinate population growth, gender inequality, health-related issues, armed conflict, terrorism and the violation of human rights. Education cannot afford to ignore their implications for a more just and sustainable process of change.

To address these challenges, ESD must achieve several things:

- develop an awareness of the concept of sustainability;
- ensure that learning objectives are clear by placing the question of why we learn (that is, the expected learning outcomes) on equal footing with what we learn, how we learn, where we learn, and who learns;
- enable learners to understand the importance of integrating knowledge from different disciplines and the nature of interdisciplinarity;
- allow learners to develop the skills needed to understand and act on both the global and local dimensions of the many issues included in sustainable development; and
- instill in learners the ability and the will to integrate sustainable living practices, for themselves and others, into their daily lives.

> *"LOOK DEEP INTO NATURE, THEN YOU WILL UNDERSTAND EVERYTHING BETTER."*
>
> *ALBERT EINSTEIN*

LEARNING THROUGH ACTION:
FIVE TYPES OF ACTIVITIES
FOR SUSTAINABILITY

In this context, what are some things that educators can propose to learners, to connect more with nature, protect biodiversity and become more aware of climate change:

1 EXPERIENTIAL AND IMMERSIVE ACTIVITIES:

Experiential activities place learners directly in real-world environments, allowing them to observe, interact, and practice sustainability concepts rather than only reading about them. These activities promote a deeper understanding of environmental, social, and cultural dimensions. They also give learners a safe space to try out new behaviors, which is essential because people cannot be expected to adopt sustainable living without opportunities to practice.

The Kindergarten of the Lagoon in Venice (Italy) uses outdoor education and ocean literacy for children aged 3 to 5. Through drawing, collaborative games, simple science experiments, and activities with local scientists and artists, children connect with the lagoon and create "nature books." Outdoor learning turns the environment into a classroom and strengthens children's relationship with nature.

In Argentina, the **12 Mar Chiquita school project** centers its learning around the Mar Chiquita lagoon. The school building was moved close to the shore and designed using a sustainable "Earthship" approach. Teachers organize workshops, vegetable gardening sessions, and student-led tours to help children understand and care for their environment.

2 INCLUSIVE AND INTERGENERATION ACTIVITIES:

These activities create learning spaces that respond to the needs of diverse learners, including differences in gender, ability, ethnicity, and age. They invite multiple perspectives, including Indigenous knowledge, and can be adapted to many learning contexts. Intergenerational activities bring together community members of different ages, allowing young people to learn from elders' experiences and wisdom.

Storytelling is one of the most effective ways to teach people about the world. **Environmental Memoirs** is an initiative to collect a series of biographies from people living within degrading ecological environments, offering real-life stories of ecological change. Learners can interview elders and document past, present, and future conditions in their community.

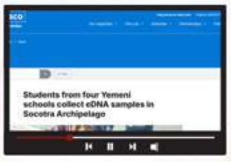
Having existed through centuries and generations, **folktales** are cherished for their uniqueness and their critical role in delivering age-old but relevant messages. Educators can find ways to integrate folktales into lessons to stimulate creativity and discussions in classrooms.

Telling tales can promote better awareness of the similarities, diversity, and inter-dependence of diverse communities, and explore natural and cultural diversity, for instance, by telling us how rice was introduced to Java in Indonesia.

3 OBSERVATION AND RESEARCH ACTIVITIES:

Observation and research encourage learners to study nature directly. This may include identifying plant and animal species, tracking wildlife signs, exploring natural habitats, or investigating ecological patterns. These activities work best when they combine multiple disciplines and social perspectives, helping learners understand environmental issues as interconnected rather than isolated.

In the **Socotra Archipelago** (Yemen), students collect environmental DNA (eDNA) samples, to better understand ocean biodiversity and the effects of climate change. Community-run plant nurseries and mangrove restoration efforts further show how ecosystems recover when cared for. The archipelago now serves an educational purpose to show visitors and schools the importance, history and folklore of the mangroves on the island.



To help mainstream climate change into classroom teaching, a **Climate Guide for Teachers** was published by the Maj and Tor Nessling Foundation in Finland. This is a resource material designed to support subject teachers in their teaching and educational work. It describes climate change from the perspective of each subject taught in elementary schools. Additionally, it offers visual materials and task ideas suitable for each subject.

4 RESTORATION AND CAPACITY-BUILDING ACTIVITIES:

Restoration activities can include planting a diverse suite of native species chosen to survive in future climates and to provide food and cover for wildlife. Learners can also remove invasive, non-native plant species.

UNESCO and Lukenya University's **10 Million Tree Marathon** planted 10,000 trees in Amboseli's Biosphere Reserve (Kenya). The marathon hosted a series of activities that included 10Km and 5Km runs and a 100Km cycling challenge. After completing their runs, participants engaged in tree planting, not only advancing towards a greener future but also embodying the spirit of collective action and global citizenship.

In Indonesia, at **Ciletuh Palabuhanratu**, educational activities are carried out from the elementary level to university and even to the professional level. Local communities are involved in initiatives related to nature conservation, education and promotion. Community empowerment programs span from raising awareness of waste management, to beach clean-ups, from surfing lessons for students, to activities related to minimizing plastic use.

5 CO-LEARNING, PARTNERSHIP AND EXCHANGE ACTIVITIES:

These activities foster shared learning between learners, communities, and experts. They develop critical thinking, teamwork, problem-solving, and reflective skills. Partnerships with local communities, including Indigenous groups, build meaningful connections and encourage collective responsibility for natural and cultural heritage.

In the **Oki Islands Geopark** (Japan), education programs are designed for each school level. Through study, play or hands-on activities, students develop knowledge about the geology, environment, and history and culture of the Oki Islands, and deepen their understanding of their region. For instance, students investigate past practices like Makihata rotation farming, learning how communities once managed fields sustainably.

In China's **Chebaling Biosphere Reserve** volunteers support conservation work, raise awareness of climate action, and help create youth learning communities for both urban and rural learners. Schools also receive science resources to strengthen ongoing environmental education.

> *"WE PROTECT WHAT WE LOVE - BUT TO TRULY LOVE, WE MUST FIRST UNDERSTAND."*
>
> *PETER THOMSON, UN SECRETARY GENERAL'S SPECIAL ENVOY FOR THE OCEAN*

3 PRINCIPLES FOR DESIGNING
MEANINGFUL AND SUSTAINABLE LEARNING

One of the most important skills for an educator is the ability to recognize and make use of "teachable moments" in everyday life. A teachable moment can happen almost anywhere – in the school yard, while walking to school, during a conversation with a student, or even while setting the table for dinner. Many of the valuable moral lessons you learned from your parents as a child were probably not consciously taught at all. Instead, they emerged during casual moments of real life, just as educators' real lessons come from being, living and interacting with students and other people in countless ways that could never be predicted in advance.

Educational activities should therefore be designed and conducted with the following principles in mind:

TRANSFORMATION:

Activities should promote transformative education and learning in support of sustainability. This means encouraging both individual and social change. Transformative activities empower learners to rethink their values, reconsider their actions, and make choices that contribute to a better future. This may include taking action against climate change, adjusting one's consumption habits, developing social entrepreneurship and sustainable livelihoods, or supporting those who are struggling against poverty and inequality.

INTEGRATION:

Activities should highlight the importance of interconnections between the economic, environmental, social and cultural dimensions of development. This integrated approach helps learners see how these dimensions influence one another in real-life contexts. Educational experiences should show how decisions in one area affect the others, guiding learners to understand interdependence and to respond in ways that acknowledge complexity rather than treating issues in isolation.

SUSTAINABILITY:

Educational activities need to emphasize long-term thinking and holistic perspectives. This means integrating environmental, social, cultural and economic considerations into planning and practice. Activities should encourage learners to think about how actions today influence the well-being of people and ecosystems in the future. They aim to maximize positive impacts while minimizing harm to the environment and local communities. Ultimately, sustainable educational activities are designed to leave lasting, meaningful benefits for both places and the people who inhabit them.

> *"WE NEED TO COLLABORATE, WE NEED TO GET TOGETHER, WE NEED COUNTRIES AND INDIVIDUALS TO WORK TOGETHER TO MAKE THIS A BETTER WORLD SO THAT WE CAN BE A LITTLE BIT PROUD OF WHAT WE LEAVE FOR OUR CHILDREN."*
>
> *DR. JANE GOODALL*

Education for Sustainable Development is an ethics of "taking care." It aims to ensure that learners acquire the knowledge, skills and mindsets to act for our planet by connecting mind, hands and heart. We need to learn to care – for ourselves, for the others, for the planet.

We must rebalance our relationship with nature by learning and acting for our planet. It is thus important for educators to remember that teaching and learning are about relationships (connections), life (action), memory (experiences), imagination (creativity), and most important the quality of listening (or intuition) – it is not just about teaching and passing on knowledge. It is about making a difference in the lives of students, families and communities.

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TEACHING FOR A SUSTAINABLE FUTURE

TOWARDS SUSTAINABILITY IN GLOBAL CITIZENSHIP

VIRTUAL EXCHANGE IN HIGHER EDUCATION

Prof. Dr. Benameur Nehar

In the 21st century, universities are transforming rapidly. Advances in technology, the urgency of global challenges, and the increasing need for intercultural understanding are reshaping how students learn and connect. Amid this shift, Virtual Exchange (VE) has emerged as a powerful educational approach. More than a digital tool, VE creates meaningful opportunities for learners to engage across borders, collaborate on shared projects, and address real-world issues together.

This piece examines what Virtual Exchange is, how it functions, and why it matters. It also highlights the growing role of VE in advancing the United Nations' Sustainable Development Goals (SDGs) and preparing the next generation of leaders to navigate complex global challenges.

Why
VIRTUAL EXCHANGE MATTERS

Our world is more connected than ever. From the products we buy to global health issues and climate change, what happens in one country affects us all. This means students need to be globally aware and prepared to work with people from many different backgrounds. VE supports exactly this goal. It offers a structured way for students to collaborate online with peers from other countries as part of their regular coursework.

Unlike traditional study-abroad programs, which can be costly or inaccessible for many learners, VE is open to everyone. This makes international learning more inclusive and creates a global classroom for all. The core idea behind VE is that students learn best when they build knowledge together. Through collaboration with international partners, they begin to see issues from multiple perspectives and question their own assumptions. In this way, VE brings the world directly into the classroom.

How
VIRTUAL EXCHANGE HELPS ACHIEVE GLOBAL GOALS

The United Nations' 2030 Agenda outlines 17 Sustainable Development Goals (SDGs) aimed at tackling major global challenges such as poverty, inequality, and climate change. When VE projects incorporate the SDGs into their curriculum, they turn these large, often abstract goals into meaningful learning experiences. Students can explore the issues from different viewpoints and discuss them with peers around the world.

VE contributes to several important SDGs. It supports **SDG 4 (Quality Education)** by expanding access to global citizenship learning. By making international experiences possible for all students – not only those who can afford to travel – it also promotes **SDG 10 (Reduced Inequalities)**. Because VE allows global collaboration without physical travel, it offers a more sustainable option aligned with **SDG 13 (Climate Action)**. And by deepening students' understanding of other cultures and strengthening their ability to work across differences, VE advances **SDG 16 (Peace and Justice)** and **SDG 17 (Partnerships for the Goals).**

VIRTUAL EXCHANGE IN ACTION:
How It Works

The best way to understand VE is to see how it works in practice. A recent feasible project involved students and teachers from five universities in the United States, Brazil, Honduras, and Algeria who participated in a four-week program focused on the SDGs (Calvo et al., 2025). The program used a mix of live video meetings and online forums to accommodate different time zones and learning styles. Students watched videos, read articles, and worked in small multicultural groups to propose solutions to sustainability challenges. One team examined SDG 6 (Clean Water and Sanitation). In this team, the student from Algeria discussed water shortages in their country, the Brazilian student explained how deforestation affects water systems, the Honduran student shared a local water purification project, and the American student contributed research on technology and funding opportunities. Their final project, a co-written paper, brought these insights together, resulting in a much deeper understanding than any of them could have achieved individually.

Another strong example is a VE program linking universities in Japan, the United States, India, and Nepal. Originally a hybrid initiative, it transitioned fully online during the COVID-19 pandemic. The program explored the relationship between agriculture and climate change. Students took joint online classes, created surveys for local farmers in their home countries, analyzed the data, and presented their findings in virtual workshops. The design of the project aimed to build six key skills, including Information and Communication Technology competence, intercultural communication, and self-management (Nandigama, 2022).

A further impactful initiative is the Global Environmental Program hosted by Global Partners in Education (GPE). This program connects institutions in Africa with universities across Europe, North America, and South America. It enables students from all academic backgrounds, both undergraduate and graduate, to collaborate on environmental goals. The program focuses on several SDGs, including Goal 6 (Clean Water and Sanitation), Goal 7 (Affordable and Clean Energy), Goal 11 (Sustainable Cities and Communities), Goal 13 (Climate Action), Goal 14 (Life Below Water), and Goal 15 (Life on Land). To support collaboration, a digital platform provides resources such as documents, links, Zoom guides, glossaries of SDG-related terms, and contact lists. It also includes communication tools like chat and forums. After the courses conclude, students and their instructors are invited to participate in the annual Global Virtual Conferences, where they present their SDG-focused research and projects to an international audience.

GLOBAL PARTNERS IN EDUCATION

Well-designed VE projects effectively build global citizenship skills, including empathy, respect for diversity, critical thinking, and a willingness to contribute to the common good.

The Benefits:

BUILDING GLOBAL CITIZENS AND SKILLS

The benefits of VE are both clear and substantial. Research shows that well-designed VE projects effectively build global citizenship skills, including empathy, respect for diversity, critical thinking, and a willingness to contribute to the common good (Lenkaitis & Loranc, 2021). Students who take part in VE often report notable improvements in their intercultural communication abilities, a stronger understanding of global issues, and greater confidence in working with people from different backgrounds.

One of the greatest strengths of VE is its diversity. Instead of being a challenge, this diversity becomes a central part of the learning process. By bringing together students from different cultures and academic fields, VE exposes participants to new ideas, encourages them to question their assumptions, and develops the adaptability needed to address complex global challenges.

Alongside these global citizenship skills, VE also supports the development of essential 21st-century competencies:

- **Intercultural competence:** Students move beyond cultural awareness to develop the ability to understand others' perspectives, adjust their communication styles, and navigate uncertainty when interacting across cultures.
- **Digital literacy:** In VE projects, technology is woven into the learning experience. Students become more digitally confident, shifting from passive consumers of information to active creators of knowledge within a shared online environment.
- **Collaboration and teamwork:** Working in globally distributed teams teaches students how to manage different time zones, communication preferences, and work habits. Through this process, they strengthen resilience, patience, and project-management skills that are highly valued in today's workplace.

The Challenges
OF VIRTUAL EXCHANGE

Despite its potential, running a high-quality Virtual Exchange (VE) requires careful planning to address several common challenges, according to Hernández-Nanclares et al. (2019).

- **The first is the Digital Divide.** This is not only about lacking a computer; it also includes slow internet, outdated devices, or limited experience with technology. Programs can support learners by offering basic training on the tools and choosing simple, flexible platforms that still function well with a weak connection.
- **Language and Communication Barriers** are another concern. When English is the main language, students who are not fluent may feel left out. Encouraging the use of multiple languages and designing tasks that emphasize visuals or data instead of perfect grammar can help everyone participate more confidently.
- **Cultural Differences** may also cause misunderstandings, since expectations about the teacher's role, communication style, or group work can vary widely. Starting the exchange with an open discussion about expectations and agreeing on clear guidelines for working together sets a strong foundation.
- **Institutional Roadblocks,** such as different academic calendars, credit transfer issues, or questions about fair compensation for teachers, can further complicate VE. Strong institutional commitment, dedicated staff, and a clear internationalization strategy can make VE a more stable and central part of university programming.

Best Practices
FOR A SUCCESSFUL VIRTUAL EXCHANGE

Based on both research and practical experience, several best practices can help ensure a successful Virtual Exchange (VE):

- **Focus on Learning Design.** A strong VE begins with intentional planning. Activities should progress from simple icebreakers to more complex collaborative tasks, with each step clearly linked to specific learning goals. Interaction alone is not enough; it needs to be purposeful and structured.
- **Use Small, Diverse Groups.** Meaningful conversations happen most easily in smaller teams. Groups of four to six students allow for deeper connections, more balanced participation, and richer intercultural understanding.
- **Build Flexibility into the Format.** Combining live sessions with self-paced activities helps accommodate different time zones, schedules, and learning preferences. Using a variety of digital tools also supports engagement and accessibility.
- **Invest in the Facilitator.** In VE, teachers act more as guides than traditional lecturers. Effective facilitators support intercultural dialogue, help navigate technological challenges, and keep the learning process on track.
- **Ensure Strong Institutional Support.** For VE to develop beyond isolated projects and become an integrated part of a university's international strategy, support is needed at all levels, including technical assistance, administrative coordination, and long-term planning.

Virtual Exchange has proven to be a powerful tool for international education, helping students build global skills and perspectives. While challenges like dropout rates and sustaining connections remain, the future of VE is promising. Immersive technologies and AI can enhance engagement and personalization, broader partnerships can deepen real-world impact, and action-focused, SDG-linked projects can turn learning into meaningful change. These trends position VE as a key driver of global learning for the next generation.

MAJOR GLOBAL VIRTUAL EXCHANGE INITIATIVES

Several large-scale Virtual Exchange (VE) programs demonstrate how widely this approach has been adopted. These initiatives connect thousands of students and teachers, fostering cross-cultural understanding and collaboration without the need for travel. Some notable examples include:

iEARN: A vast network of over 30,000 schools in more than 140 countries. iEARN's virtual exchange projects engage approximately 2 million students every day.

The Stevens Initiative: A U.S.-based program that links young people in the United States with peers in the Middle East and North Africa (MENA). In just two semesters, it involved over 3,000 participants from both regions.

Erasmus+ Virtual Exchange: Originally a pilot project, it has now become an integral part of the Erasmus+ program. Hundreds of universities across Europe have taken part, making VE a key component of European international education.

Global Partners in Education (GPE): Founded by experts at East Carolina University (ECU), this program uses video conferencing and online platforms to break down barriers to education. Over the past 15 years, more than 27,000 students and faculty from around the world have participated in GPE programs, developing critical global skills.

SUNY's COIL and European initiatives such as EVE, EVALUATE, and EVOLVE: While the number of participating institutions is not precisely quantified, these programs are increasingly popular and gaining global support and interest.

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SPECIAL INTRO

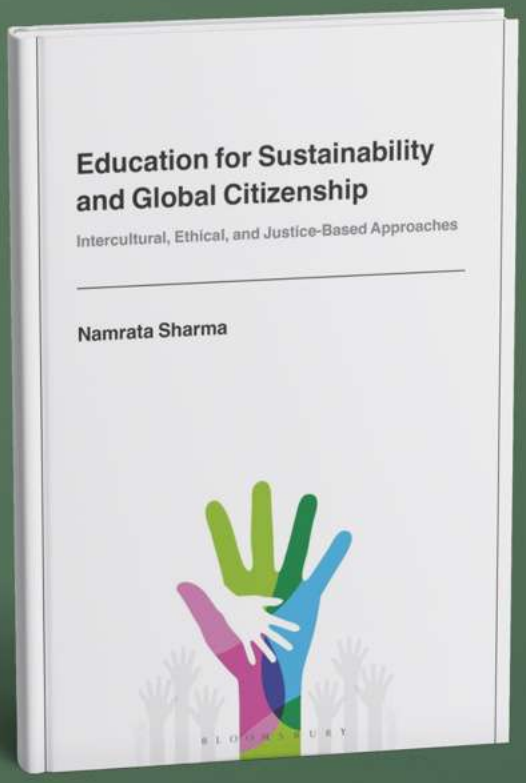
FEATURED BOOK

growing tomorrow
TEACHING FOR A SUSTAINABLE FUTURE

EDUCATION FOR SUSTAINABILITY AND GLOBAL CITIZENSHIP

INTERCULTURAL, ETHICAL, AND JUSTICE-BASED APPROACHES

Written by Dr. Namrata Sharma



Education for Sustainability and Global Citizenship: Intercultural, Ethical, and Justice-Based Approaches, published by **Bloomsbury Publishing** (2025) and authored by **Dr. Namrata Sharma**, presents a timely and compelling framework for rethinking education in an era of accelerating ecological and social challenges. Drawing on her international scholarship and her work with the United Nations Harmony with Nature Knowledge Network, Dr. Sharma introduces value - creating global citizenship education - a holistic approach that connects sustainability, ethics, intercultural understanding, and human rights.

Anchored in diverse global perspectives, the book explores insights from Indigenous knowledge systems, the Earth Charter, the Soka Amazon Institute, and Earth Jurisprudence initiatives. These examples illustrate how educators can nurture resilience, environmental awareness, and a deeper sense of interconnectedness between learners and their natural and social environments.

With clear, practical guidance for integrating sustainability and global citizenship across curricula and educational settings, Dr. Sharma challenges the long-standing separation of ESD and GCE. Instead, she advocates for an integrated paradigm that promotes social-ecological justice, global solidarity, and compassionate action.

Thoughtful and visionary, Education for Sustainability and Global Citizenship positions learners as responsible planetary citizens and reaffirms the transformative power of education to build a more peaceful, equitable, and sustainable world.

Dr. Namrata Sharma is on the faculty at the State University of New York, USA, and is an international education consultant. Dr. Sharma is also an expert with the United Nations Harmony with Nature Knowledge Network. Her publications include Value-Creating Global Citizenship Education for Sustainable Development (2020). For more details visit: DrNamrataSharma.com

The EduVerse Newsletter *is delighted to feature a brief interview with Dr. Namrata Sharma, author of Education for Sustainability and Global Citizenship. Let's gain insights into her inspiration, her vision for sustainability education, and her guidance for educators shaping a more just and connected world.*

EduVerse: Welcome, Dr. Sharma, and thank you for joining us. We're excited to have you discuss your book in the context of our special edition on Teaching for a Sustainable Future. Your book brings together two big ideas - sustainability and global citizenship. For listeners who come from many different backgrounds, how do you define these?

Dr. Namrata Sharma: Let me start with what is meant by sustainability. We're more and more aware that our actions have an impact on environmental issues such as air pollution and freshwater use. From being mindful to not waste water, to turning off lights for responsible energy consumption – these are simple sustainability actions we are encouraged to take in our daily lives. It's also about how people live with each other within planetary boundaries. It means keeping Earth's systems – like climate – within safe limits. Overall sustainability is about living in harmony with Nature, with other people, and the planet.

And global citizenship?

Global citizenship is the understanding that we are all connected as human beings in this world. It is the awareness that our actions affect people and the planet beyond our national borders. Education for global citizenship is about cultivating such an awareness of our interconnectness with all life.

When we bring the two together, through education for sustainability and global citizenship we can empower learners to work on global challenges like climate change, poverty, and inequality. It is also to prepare learners to see that their daily choices – what they consume, how they travel, how they engage with diversity – their actions affect the planet and all life.

What pushed you to write this book now? Why this moment?

The simple answer is urgency. We're living in an era where multiple crises are colliding – climate change, widening inequality, mass displacement, and even a crisis of values, where democratic institutions and basic human dignity are under pressure.

One of the gaps I noticed was that across many educational contexts, issues of sustainability and global citizenship were being discussed in isolation. For example, those engaged in education for sustainability are focused on environmental issues such as recycling, combatting biodiversity loss, or tackling energy efficiency. While others working on global citizenship education are interested in preparing learners to live in an interconnected world with a sense of shared responsibility for global challenges like climate change and poverty. But they are interlinked.

We can't solve environmental crises without addressing social injustice. So, I wrote this book to create a bridge between education for sustainability and education for global citizenship to show educators, policymakers, NGOs and others that sustainability and global citizenship are two sides of the same coin. And that if we want a hopeful, livable future, the focus of global education has to be on fostering capable planetary citizens.

Dr. Namrata Sharma is on the faculty at the State University of New York, USA, and an expert with the United Nations Harmony with Nature Knowledge Network (UN HwN). She is an international education consultant and has served on the Boards of several professional organizations in India, USA, and Europe.She holds a bachelor's degree from Delhi University, SRCC, India; a master's degree in education from Soka University, Tokyo, Japan; and a Ph.D. from the University College London – Institute of Education (IOE), UK. She worked as faculty at the University of Nottingham in the UK before her move to the US. She has authored several books, research papers, and articles.

Dr. Sharma has specialist interests in Global Citizenship Education, Sustainability Education, International and Comparative Education. In her ongoing research work she is engaged in drawing meaningful linkages between teaching the UNESCO-led initiatives of Global Citizenship Education and Sustainability.

A key part of your book is "value-creating global citizenship education." Can you walk us through what that means?

Young people today are facing several planetary issues — climate injustice, biodiversity loss, the growing influence of AI on job markets, and rapidly shifting global politics. So the question is: how can education develop the knowledge, skills, values, and attitudes they need for the twenty-first century?

In 2015, the United Nations adopted the 17 Sustainable Development Goals, and Goal 4 focuses specifically on quality education, including Education for Sustainable Development and Global Citizenship Education. There's already a lot of work happening on what to teach through these frameworks, and also discussions on how to teach in ways that respond to the changing social and educational environment.

Value-creating global citizenship education is one such pedagogical approach. It is a learner-centered approach focused on the health, well-being, and happiness of each student. The aim is to prepare learners not only to care for their own welfare but also to work collectively for the welfare of others and the planet.

And what makes this approach different from the way global citizenship or sustainability is often taught?

This approach is *not* about adding new curriculum content. Instead, it offers themes and topics that teachers can weave into subjects they already teach — economics, language, geography, or any subject across schools and higher education. For example, in geography, students might explore the unequal impacts of climate change across regions. In economics, they might look at sustainable business practices. So it enhances existing subjects rather than replacing them.

Let's talk about the bigger picture. What do you see as the biggest challenges in bringing sustainability and global citizenship into mainstream education—and what opportunities give you hope?

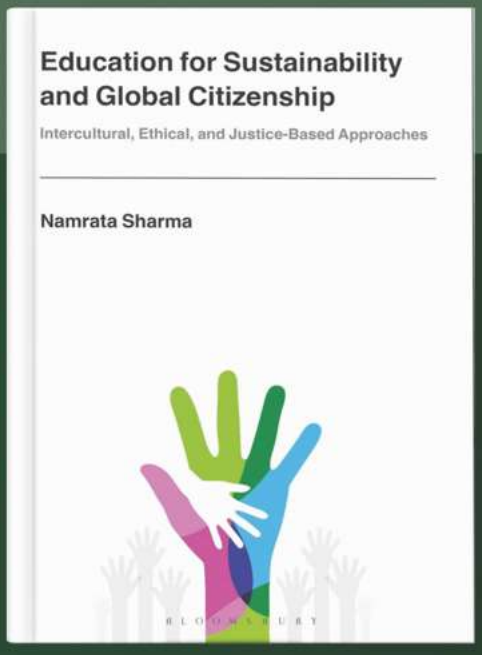
The challenges are very real. Education systems are already overloaded with content, and teachers are under pressure to prepare students for tests and exams. That leaves very little room for introducing "new" themes.

There's also a lack of training. Many teachers themselves haven't been exposed to sustainability or global citizenship education, so naturally they feel unprepared. And in some contexts, there's political resistance. Topics like climate justice or global responsibility can be seen as controversial.

And yet, you also sound hopeful.

Absolutely. Young people are already leading the way — think of the Fridays for Future movement and so many climate activists around the world. I'm also encouraged that more universities, ministries of education, and international bodies are embedding sustainability and global citizenship into their frameworks. The momentum is real.

The big question now is how to sustain this momentum and make sure it reaches every classroom, not just the privileged few.



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Dr. Sharma, before we wrap up, are there any final messages from your book that you'd like our audience to take away?

Yes, a few key points.

First, we need to bring less widely known perspectives – especially from the Global South – into global education debates that are still largely shaped by the Global North. Value-creating global citizenship education draws on these integrated worldviews, including those reflected in the Earth Charter.

Second, we must make stronger linkages between education for sustainability and global citizenship education. The book offers concrete, practical suggestions to support teaching and learning. And I want to acknowledge the teachers and educators on the frontlines—this book is also for them, offering resources, guidelines, and networks they can use.

Finally, I'd like to emphasize that *all of us* can contribute to a more sustainable world. Our everyday choices are acts of global citizenship—what we buy, how we travel, how we treat diversity in our neighborhoods. We don't have to wait for governments. As Gandhi said, change begins with us.

We're deeply grateful, Dr. Sharma, for your wisdom and for helping us deepen the conversation on global citizenship and sustainability.

Thank you, EduVerse, for inviting me and for the work you do to connect and empower educators around the world.

The terms Global North and Global South describe global patterns of power and influence rather than geography. The Global North includes wealthier, highly industrialized countries whose perspectives have historically shaped global policies and education debates. The Global South includes many countries in Asia, Africa, Latin America, the Caribbean, and parts of the Middle East that have often faced economic or political marginalization. Although these regions hold rich knowledge and traditions, their voices remain underrepresented in global education discussions.)

The Earth Charter is a global ethical framework that sets out shared values for caring for the planet and promoting justice, human rights, and peace. Created through a decade-long international consultation involving thousands of people, it was officially launched in 2000 as a guide for building a just and sustainable world.

Earth Charter.

EMPOWERING STUDENTS FOR A

SUSTAINABLE FUTURE

THROUGH EDUCATION FOR SUSTAINABLE DEVELOPMENT

Yuri Barbour

Progress and the CLIMATE CHALLENGE

From recent space missions to AI, the headlines of our time tell a story of human curiosity and resilience in making the impossible possible. Yet, behind this narrative of progress lies an unsolved challenge: adequately addressing climate change.

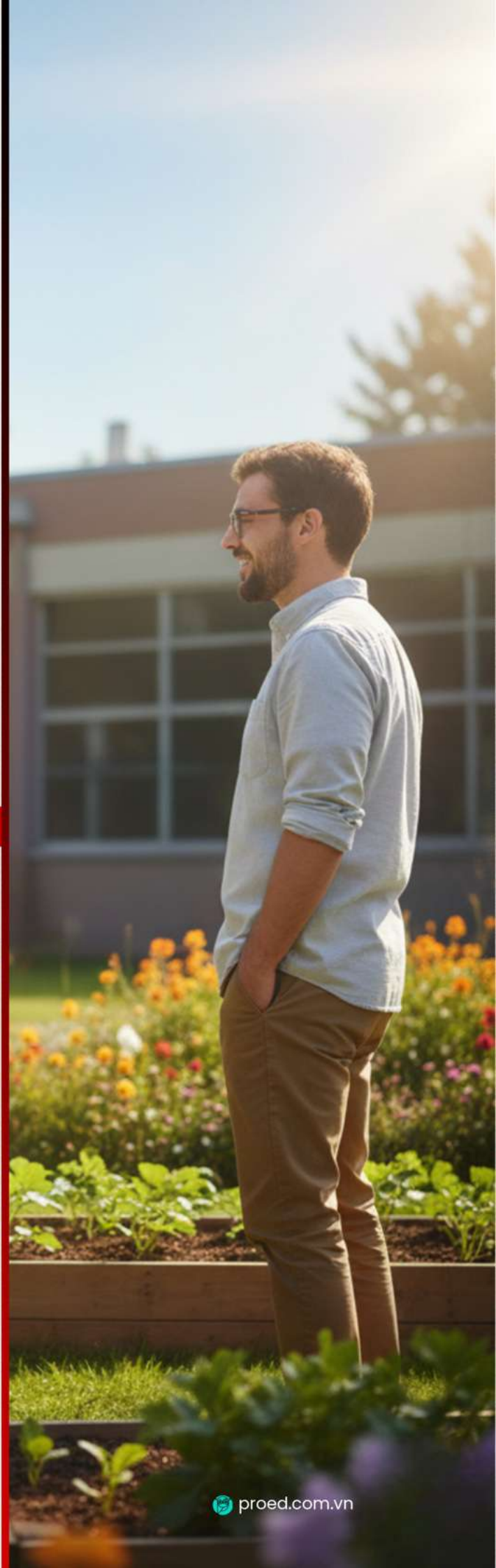
Over the past few decades, key decision-makers worldwide have been focusing their efforts on addressing this crisis. Notable examples include the Kyoto Protocol of 1997, which aimed to limit and reduce greenhouse gas emissions, and the Paris Agreement, designed to limit the rise in global average temperature. Still, while global agreements have set the stage for collective climate action, the real and lasting transformation depends largely on education. So, how are societies preparing citizens to understand, engage with, and act upon these complex environmental challenges?

Nowadays, students frequently hear about the climate crisis, what Latour (2017) calls "climate mutation", in various contexts and are introduced to this agenda from a very young age. This topic is so present that it has brought to the attention of schools and the general population many new acronyms that are now part of our daily lives. Some of these are the SDGs (Sustainable Development Goals), COP (Conference of the Parties), IPCC (Intergovernmental Panel on Climate Change), GHG (Greenhouse Gases), and ESG (Environmental, Social, Governance), among others. As a result, in the classroom environment, this crucial subject of international matters, arguably one of the most important of our time, is often summarized as a mere arrangement of letters rather than fostering the sense of urgency it truly demands.

THE ROLE OF EDUCATION:
Rethinking
HOW WE TEACH SUSTAINABILITY

With such a dilemma, it becomes evident that education is currently facing a huge challenge: to address the importance and urgency of climate change while pursuing a more meaningful approach, one that not only emphasizes the importance of environmental knowledge but also strengthens students' critical thinking and essential life skills. In this sense, a powerful framework that offers such potential is Education for Sustainable Development (ESD).

"Education for Sustainable Development (ESD) is defined as education that empowers learners to make informed decisions and responsible actions for environmental integrity, economic viability, and a just society for present and future generations" (UNESCO). In essence, ESD is a student-centered pedagogy that aims to equip citizens with knowledge, skills, and values related to sustainability in all of its dimensions, encompassing not only environmental aspects but also promoting responsibility in their actions, thereby contributing to the achievement of the SDGs.



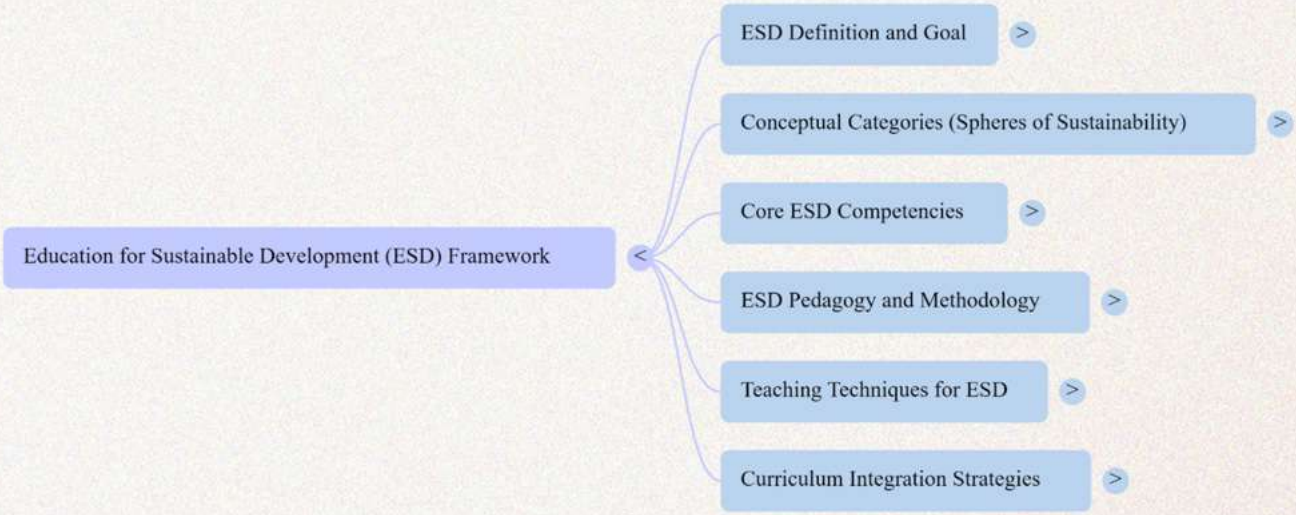


Figure 1. Education for Sustainable Development (ESD) framework and its key dimensions.

The key aspect of ESD is to provide holistic and transformative education by breaking down learning goals into three interconnected domains: cognitive, socio-emotional, and behavioral. In other words, it creates lesson scenarios in which the student will be challenged to face potential issues with accurate background information and knowledge about it (cognitive domain), social skills and empathy to those who are impacted by that (socio-emotional), and encouraging them to make changes by taking action (behavioral) with the right tools to tackle real-world problems, always respecting everyone's individuality.

This line of thought reflects Laurie et al.'s (2016) observation that students are more impacted by the way lessons are planned than the content itself. Therefore, the way sustainability is taught has a more profound effect on primary and secondary education than the actual content of sustainability itself. Integrating sustainability into the curriculum goes beyond teaching about it; it also encompasses acting on it. Active pedagogies, such as in-class debates, inquiry-based learning, and group work, are directly connected to ESD, and equip students with the right tools to become active and whole citizens, who are fully developed in multiple dimensions, not just academically.

Given the challenges of the 21st century, it is essential to consider how each lesson contributes to preparing students for an uncertain and complex future. Of course, as human beings, we do not always succeed in all our choices, but through the act of rethinking, remodeling, and putting new ideas into practice, we can continuously challenge ourselves—just as the students are often challenged.

IMPLEMENTING ESD IN PRACTICE:
The Food Waste Challenge

The exploration of ESD in practice leads to the design of activities that are often engaging for students and insightful in terms of outcomes. In light of this, students can learn, for example, about carbon emissions and greenhouse gases in relation to SDG 2 - Zero Hunger and SDG 13 - Climate Action, through an activity that involves food waste.

I conducted an investigation with my students on the school's food waste, and the outcomes were beyond imagination. Reducing global food waste by half by 2030 is a key priority for the United Nations, making the topic of importance both local and global. When students raise awareness about food waste and gather data from their local community, they connect their realities to the world they live in and likely feel a greater sense of belonging.

The activity began with an article discussing global food waste and its connection to climate change, highlighting that one-third of the global food produced for human consumption is wasted or lost yearly (Mokrane et al., 2023). This is also a valuable opportunity to present to students that food waste contributes 6% of greenhouse gas emissions (GHGs), primarily through methane (CH4), a gas 28 times more potent in the greenhouse effect than carbon dioxide (CO2) (Economou et al., 2024). In possession of such pieces of information, students have evidence of how things are interconnected and how both individual and collective choices impact global issues.

Next, after being exposed to background information aimed at raising awareness about the magnitude of the issue, I engaged my students in planning and designing how we could obtain comparable data within our own school community. The first challenge, gathering raw data on food waste, was addressed by developing a plan to inform the school about the investigation and, in the following week, the cafeteria trash bags would be weighed after lunchtime.

For my students, the project evolved beyond a classroom exercise into a school-wide initiative. It required collaboration among staff, cafeteria personnel, and the broader student body, illustrating how challenges of this nature bring together collective effort across the institution. Importantly, the initiative was led by students, who took ownership of both the investigative process and the communication strategies involved. Such experiences reflect the essence of ESD, where authentic, real-world problems become vehicles for developing critical thinking, problem-solving, and leadership skills.

According to a 2022 UN report, the quantity of food wasted in one year exceeds the number of people facing hunger problems.

Interdisciplinary Learning AND STUDENT EMPOWERMENT

Moreover, initiatives of this kind demonstrate that ESD not only fosters sustainability awareness but also has the potential to improve other areas of knowledge by encouraging students to apply interdisciplinary approaches. For example, students draw on skills from mathematics to analyze data, from language studies to communicate findings effectively, and from the sciences to connect evidence with broader environmental issues. Ultimately, integrating such practices into the curriculum can positively contribute to student performance and academic outcomes, as students experience meaningful applications of their learning that are both contextually relevant and intellectually rigorous.

Consequently, students have come to the conclusion that when food is discarded, people not only contribute to climate change, but also waste precious resources that could have been used to feed those experiencing food insecurity, a condition characterized by a lack of access to sufficient food or food of adequate quality, thereby meeting one's basic needs. According to a 2022 UN report, the quantity of food wasted in one year exceeds the number of people facing hunger problems (United Nations, 2023). Therefore, it is crucial to highlight the significance of addressing food waste, particularly given that many countries still face concerning levels of undernourishment.

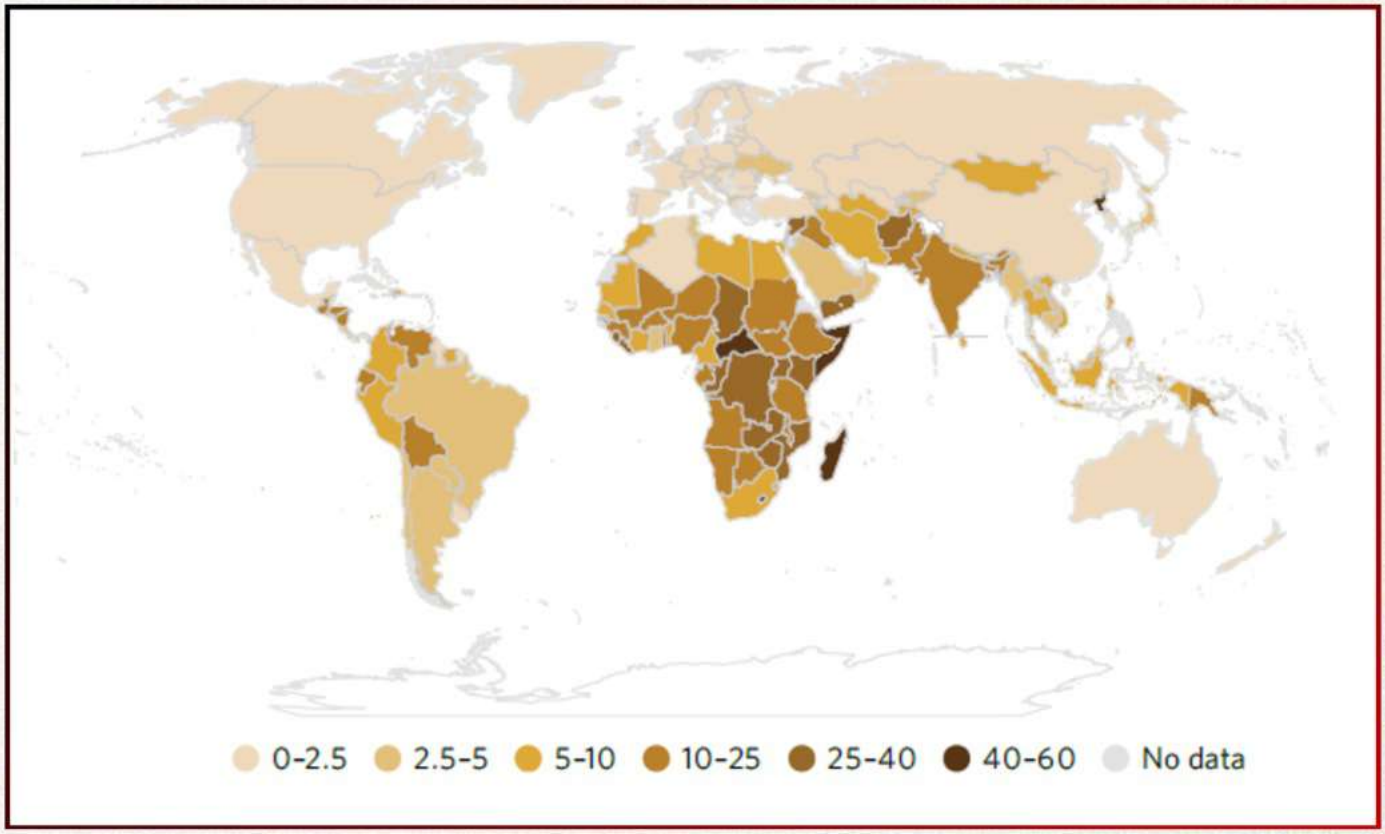


Figure 2. Prevalence of undernourishment, 2020–2022 average (percentage) (United Nations, 2023).

The goal is not to blame anyone, but to use these statistics to nurture a sense of change in each student. This helps them understand that, in real life outside the classroom, problems are often complex and closely connected. In a way, students are experiencing experiential learning, based on the theory synthesized by Kolb (1984/2015). They reflect on an experience they have had and then think about how to act upon what they have learned. This step allows them to actively apply their learning in new ways through active experimentation. Therefore, the modern preparation of students requires a pedagogical approach that considers developing specific skills.

Figure 3. Students working on the data processing from the food waste challenge. Source: Author.

Developing ESD Competencies
FOR THE 21ST CENTURY

ESD involves developing life skills and competencies that foster the critical awareness of 21st-century citizens. One example is the Integrated Problem-Solving Competency, a key transversal skill that strengthens students' ability to use different, practical, inclusive, and fair problem-solving approaches when working with complex situations. The other competencies are all interconnected and should be of equal importance to the development of the student. In the context of the food waste challenge, students had to apply these skills, as well as a lot of collaboration and communication skills, to present the results to different age groups within the school.

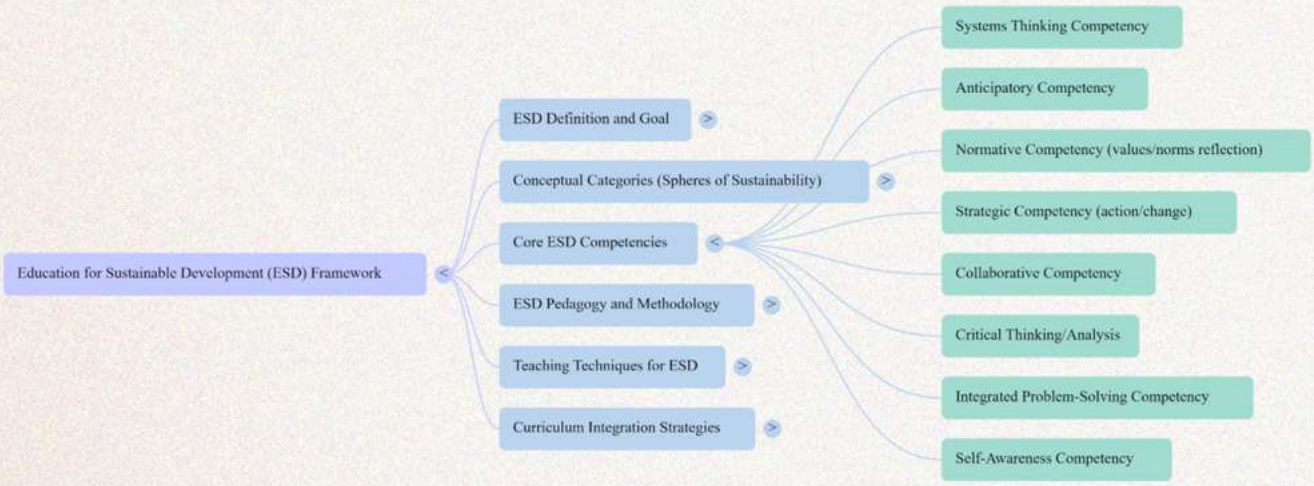


Figure 4. Core ESD Competencies.

When students first learn about the SDGs, they often feel powerless or disconnected from the solutions because they struggle to see how one person can help address global challenges. This reaction is natural, as it's not immediately clear to them that individuals can contribute in meaningful ways. In reality, tackling these issues requires collective action, where even small, local efforts become an important part of a larger global movement.

Global Collaboration

UNESCO emphasizes the importance of global community cooperation in achieving the SDGs. As a result, we have seen the launching of network programs that support the implementation of ESD, creating these global communities through advocacy, partnerships, promising practices, knowledge-sharing, and mutual learning (UNESCO, 2023).

Global Schools Program

The exchange and collaboration worldwide have brought educators closer together and removed the barriers that we would usually create when discussing climate change. Specific programs, such as the Global Schools Program (refer to: https://www.globalschoolsprogram.org/), aim to create synergy and foster collaboration by providing educators worldwide with appropriate tools and support to teach sustainable development in the classroom and form sustainable leaders. Teachers interested in developing this work and participating in the community can register to receive free online training on ESD, or they can visit their website for resources. For those who receive the training, after completion, they assume the role of Global Schools Advocate for a 6-month period (with possible extension) to put into practice all the knowledge acquired and share it with a network of other educators, initially within their schools and communities, but it is encouraged to share with as many people as possible.

School Leadership and
COMMUNITY ENGAGEMENT

From my participation in the Global Schools Program, I initiated and began leading a new Sustainability Committee within the school. The committee serves as a platform to engage teachers, staff, and students in developing and implementing sustainability-oriented actions that align with the SDGs. Its purpose is to foster a culture of environmental awareness and responsibility across the school community, while also encouraging student leadership and participation in projects that connect classroom learning with real-world challenges. To do so, we have regular meetings to discuss not only the actions, but also to discuss and establish tangible objectives for the committee, such as guaranteeing the integration of sustainability in the whole school curriculum, planning events to raise awareness about climate change, and bringing the school community closer to the school's agenda.

In April 2025, the Sustainability Committee organized an Earth Week event at the school, featuring a variety of activities to celebrate International Environment Day. The program included hands-on workshops on recycling, composting, and photography using reusable materials, along with meaningful student-led initiatives such as sustainability quizzes during break time with prizes. Students also engaged in food donation drives, uniform and e-waste collection campaigns. Conversation circles over lunch brought specialists and students together to reflect on sustainability topics in areas such as business, arts, and fashion, while representatives of a leading Brazilian organic farm visited the school to present how farmers are incorporating sustainability into their practices.

The future we envision as humanity depends on the choices we make today. There may be no single "correct" pedagogy, but certainly having the right tools to equip the students for an uncertain future might be a good way to prepare them. Thus, we should be discussing quality education as a whole, from the formation of educators and the methods of teaching, to the individuality of each student, the content, and the citizens we expect students to become.

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THE FUTURE WE ENVISION AS HUMANITY DEPENDS ON THE CHOICES WE MAKE TODAY.

PLANTING Seed FOR A SUSTAINABLE FUTURE:

EVERY STUDENT, EVERY VOICE

Jessica Maddry

A seed holds extraordinary potential. In its smallest form, it contains the promise of growth, nourishment, and transformation. Yet a seed only thrives when the conditions are right - too much water can drown it, too little leaves it brittle. Education is no different. At its best, it nurtures curiosity, resilience, and equity. At its worst, it risks either overwhelming or neglecting learners, failing to provide the balance needed for sustainable growth.

Today, as classrooms wrestle with questions of digital literacy, intergenerational influence, and the role of AI, we stand at a crossroads. Do we scatter seeds without care, hoping some will take root? Or do we cultivate intentionally, balancing tradition and innovation to ensure every student's voice is heard and every future is possible?

growing tomorrow
TEACHING FOR A SUSTAINABLE FUTURE

This article weaves together research, lived realities, and global calls for change. It argues for a balanced, sustainable approach to education, one that integrates intergenerational knowledge, embraces digital opportunities, and nurtures equity through careful, community-driven design.

THE INTERGENERATIONAL GARDEN: ROOTS THAT SHAPE THE FUTURE

Seeds do not exist in isolation. They are connected to the soil they are planted in, enriched or depleted by what came before. Similarly, the traits, habits, and values of children's families deeply shape their educational journeys.

Recent research demonstrates how parents' reading and musical traits echo across generations. Cantiani et al. (2023) found that infants' auditory processing, influenced by parents' traits, directly connects to later phonological awareness. This intergenerational link suggests that literacy is not just taught; it is inherited, nurtured, and shaped by the home environment long before formal schooling begins.

Grande et al. (2025) extend this view by exploring how both mothers and fathers contribute uniquely to children's word-reading development. Their findings highlight the importance of engaging families as co-partners in education. Just as a seed requires sunlight, water, and healthy soil, a child's reading development thrives on the interplay of parental modeling, support, and encouragement.

Yet schools often swing between extremes, placing all responsibility on educators or expecting families to "fill the gap." A sustainable system requires balance, where intergenerational contributions are valued, not sidelined. Imagine a garden where the roots stretch deep: families pass down traditions of storytelling, music, and language, while schools cultivate new shoots of curiosity and inquiry. Both are essential to the growth of the whole plant.

When policymakers ignore these connections, they risk creating shallow systems where roots do not hold. When they honor them, however, they cultivate resilience. Sustainable educational futures require systems that embrace families as gardeners alongside teachers, creating ecosystems of shared responsibility.

BALANCING TRADITION AND INNOVATION:
AI AS A TOOL, NOT A REPLACEMENT

When a new fertilizer promises faster growth, farmers must ask: Does it truly nourish the plant, or does it risk eroding the soil over time? Likewise, education faces this question with AI.

Roshanaei et al. (2023) emphasize how AI can foster equity in education through adaptive learning platforms and intelligent tutoring systems. These tools promise personalization at scale, helping students who might otherwise be overlooked. Yet without intentional design, they caution, AI risks reinforcing disparities by privileging students with greater access to technology or parental support.

The metaphor of water applies again: too much reliance on AI may wash away human connection, but too little risks leaving students unprepared for a future where AI literacy will be essential. Purposeful integration is key. AI should not be the gardener; it should be the tool in the gardener's hand.

Teachers remain central. They carry the wisdom to know when to water, when to wait, and when to pull back. AI may speed processes, but educators ensure meaning, context, and care. Schools that embrace AI as a supportive tool, rather than a substitute, preserve the humanity of education while preparing students for the digital future.

> AI SHOULD NOT BE THE GARDENER;
> IT SHOULD BE THE TOOL IN THE GARDENER'S HAND.

DIGITAL LITERACY AS
THE FERTILIZER FOR GROWTH

Seeds planted in poor soil rarely flourish. In today's world, digital literacy is the fertilizer that ensures equitable growth. Without it, entire generations risk being trapped in cycles of dependency.

Wang et al. (2024) show how digital literacy reduces intergenerational income dependency, empowering students to participate in financial systems and digital economies. It is not merely about technical skills; it is about critical thinking, evaluation, and responsible engagement with technology.

Digital literacy, however, requires balance. Overexposure can erode well-being and attention, while underexposure leaves students vulnerable in a digital society. Like crop rotation, schools must balance traditional practices with digital opportunities to maintain healthy "soil" for learning.

Here lies education's challenge: to prepare students not only to use digital tools but also to question them, and to ensure students can plant seeds of opportunity without depleting the ground beneath them.

EDUCATION FOR SUSTAINABILITY:
ALIGNING WITH THE GLOBAL AGENDA

Seeds of change must be planted not just locally but globally. The United Nations' 2030 Agenda for Sustainable Development calls for education that fosters environmental stewardship, social justice, and global citizenship.

Shulla et al. (2020) argue that sustainable development education must be woven across curricula, not added as an afterthought. Students need to understand that climate, equity, and justice are not "extra lessons" but are important parts of their daily lives.

Too often, sustainability is taught as a distant concept. Students read about climate change but don't see how their actions matter. They discuss equity without experiencing it in policies. This disconnect mirrors a farmer planting seeds but never tending them.

Participatory models provide an answer. When students help shape curriculum, engage in local projects, and see themselves as agents of change, sustainability shifts from concept to practice. Schools then become the fields where seeds of justice and responsibility grow into harvests of global citizenship.

This alignment is not only about preparing students for the future but also about empowering them in the present. Imagine schools where recycling initiatives are student-led, where gardens serve as outdoor classrooms for climate science, and where debates on fairness connect directly to community decisions. These practices bridge the global with the local, transforming abstract goals into tangible experiences.

Moreover, sustainability education is deeply tied to equity. Environmental and social crises most often affect marginalized communities first and deeply. When schools foreground this reality, they invite empathy, solidarity, and critical thinking. Students learn that sustainability is not only about preserving resources but also about cultivating fairness and dignity for all.

In this way, classrooms move beyond content delivery to become living ecosystems, places where knowledge, values, and responsibility are cultivated together. Just as seeds need ongoing care to thrive, so too must sustainability be nurtured daily in both policy and practice.

FINDING THE BALANCE:
LESSONS FROM THE GARDEN

A well-tended garden teaches balance at every stage:

- Too much water drowns the seed.
- Too little water leaves it dry.
- Overfertilization burns roots.
- Neglect stunts growth.

The ecosystems that thrive are diverse, interconnected, and resilient. Schools must mirror these qualities, acknowledging complexity, resisting one-size-fits-all fixes, and cultivating communities where every student is given space to grow.

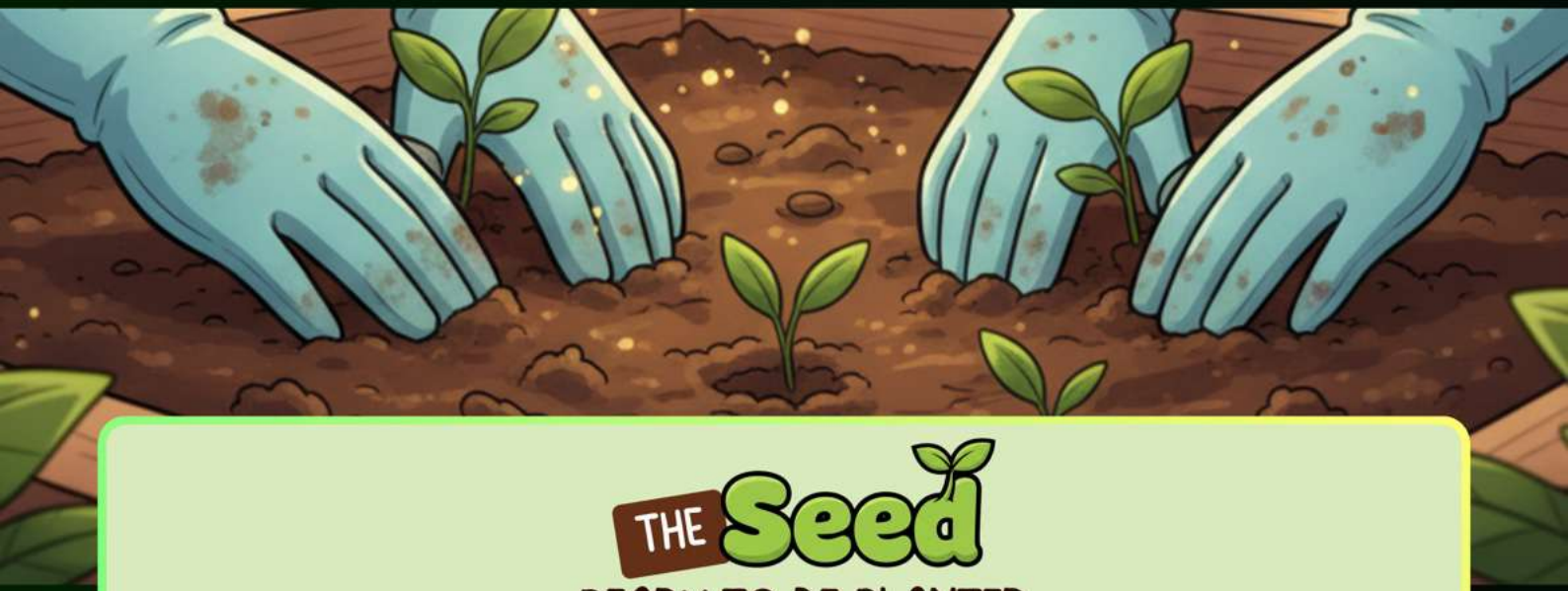
Education, too, demands balance. Intergenerational voices must be honored without overburdening families. AI must be leveraged without overshadowing teachers. Digital literacy must be taught without overwhelming students with screens. Sustainability must be global yet grounded in the local.

EVERY STUDENT, EVERY VOICE

At the heart of this vision is a simple truth: every student deserves to be heard. Seeds cannot advocate for themselves; they rely on the gardener's care. Students, however, have voices, and ignoring them risks cultivating barren soil.

Research underscores intergenerational influence, but students are not passive inheritors. They are active agents, capable of shaping the future when given space to participate. Schools that invite student voices into decision-making not only plant seeds but also empower students to become gardeners themselves.

True sustainability requires this shift. Education systems that silence students risk harvesting conformity. Those who amplify voices harvest innovation, resilience, and justice.



THE Seed
READY TO BE PLANTED

A sustainable future is not an abstract dream; it is a seed already in our hands. The research is clear: intergenerational influence shapes literacy (Cantiani et al., 2023; Grande et al., 2025), digital literacy breaks cycles of dependency (Wang et al., 2024), AI offers both risks and opportunities (Roshanaei et al., 2023), and sustainability must anchor global education (Shulla et al., 2020).

But knowledge alone is not enough. Seeds left unplanted cannot grow. Action—thoughtful, balanced, inclusive action—is required. Schools, families, policymakers, and communities must come together to prepare the soil, balance the water, and protect the emerging shoots.

Hope lies in our willingness to plant deliberately, not scatter carelessly. If we cultivate with intention—valuing equity, fostering resilience, and protecting student voice—the seeds we plant today will blossom into thriving gardens of possibility tomorrow. The future is not waiting somewhere far ahead; it is germinating right now, in the classrooms, homes, and communities where students live and learn.

This means creating classrooms where curiosity is not just permitted but celebrated, where technology is introduced as a tool of empowerment rather than replacement, and where sustainability is not a distant policy goal but a lived daily practice. It means embracing intergenerational wisdom, where the stories of grandparents sit alongside the innovations of young learners, ensuring that education is both rooted and forward-facing.

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The hope is real.
The future is ready.
The seed is waiting.
And it is ours to plant.

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TEACHING FOR A SUSTAINABLE FUTURE

Empathy in the Classroom

The Power of

Rosita Beidaghi

The moment a teacher shares their own story, perhaps of migration, failure, or resilience, is the moment students realize they are no longer invisible. In many multicultural and multilingual classrooms, empathy does not begin with a policy but with a pause. It begins when a student hears their home language echoed in a teacher's greeting or sees their lived experience reflected in a storytelling circle. These are not decorative moments; they are transformative. As we prepare students for a rapidly changing, fragile world, empathy becomes more than a soft skill; it becomes the sustainability muscle of education. The central claim here is simple: empathy-centered teaching animates creative inclusion and tangibly advances Sustainable Development Goals (SDGs), by turning classrooms into places where equity is lived, not just named.

EMPATHY AS THE HEART OF CULTURALLY RELEVANT PEDAGOGY

If culturally relevant pedagogy is the house, empathy is both its foundation and wiring. Ladson-Billings (1995) asks educators to connect academic success, cultural competence, and critical consciousness. That connection weakens when empathy is treated as an optional ribbon – pretty, but nonessential. In practice, the three pillars hold only when the emotional architecture is solid. Students take intellectual risks when the room feels human; they lean into rigor when they feel seen. This is not about being sentimental – it is a deliberate teaching strategy. Applying Ladson-Billings' ideas in everyday teaching means going beyond surface-level celebrations of culture and instead co-creating learning experiences with the young people in front of us. Culture should not be a theme day; it is the medium of learning. Empathy, in this sense, is an active and thoughtful effort to understand others' perspectives and to stay accountable through dialogue, especially when challenges arise. As Ladson-Billings puts it, "Culturally relevant pedagogy rests on three criteria or propositions: (a) students must experience academic success; (b) students must develop and/or maintain cultural competence; and (c) students must develop a critical consciousness through which they challenge the status quo of the current social order" (1995, p. 160).

PRACTICING EMPATHY IN TEACHER DEVELOPMENT

Over the past several years, through working with teachers and school leaders across varied contexts, a practical, collaborative approach has taken shape in our professional learning sessions. It does not present empathy as a curriculum to adopt, or a script to memorize, but as a stance to practice together. We begin with the adults, not to prioritize teachers over students, but to acknowledge that classroom climates mirror adult habits. One simple, structured activity involves sharing a one-minute story about a meaningful classroom moment: the first text that moved you, a time you went quiet in school, a memory of being misread. These short stories don't ask for confession but reflection—they help reveal how power, language, and belonging operate in our classrooms.

From there, we rehearse routines that can actually travel back to class the next day. Colleagues co-draft brief "rewrite the narrative" scenes in which a familiar equity conflict – say a student is corrected harshly for translanguaging during group work, or a stereotype slips into a discussion, is replayed, mapped through an empathy map, and re-authored into a different interaction. Others try short role-plays or drama-based moves that shift the energy from judgment to curiosity. We also prototype lightweight reflection loops, two closing questions, a weekly note, a 60-second audio check-in, that help students and teachers track what belongs, what hurts, and what might heal. None of this is an add-on. These routines make the hidden curriculum visible. Over time, they build the muscle memory that allows multilingual participation to rise, conflicts to de-escalate earlier, and collaborative problem-solving to deepen.

What matters about this approach is not its novelty but its portability. A literature seminar, a science lab, or a small-group writing club can all hold the same stance: design for dignity, rehearse repair, and keep stories close to the learning. When teachers later notice students translating materials for one another without prompting, or see a tense exchange end with co-articulated norms rather than referrals, what we are hearing is empathy becoming infrastructure. That shift is made of small choices, repeated often.

> **In racially and linguistically diverse classrooms, the teacher–student relationship is not background noise; it is curriculum.**

REDEFINING POWER AND PRESENCE

In racially and linguistically diverse classrooms, the teacher–student relationship is not background noise; it is curriculum. Warren (2014) names empathy as a professional stance that repositions the adult from cultural gatekeeper to relational learner. Authority is not abandoned; it is exercised with ethical responsibility. When a teacher acknowledges uncertainty, narrates a boundary, or models repair, students see that authority and humility can coexist. Power in this room is exercised with you, not over you. In my earlier inquiry into silence and misrecognition in multicultural educational settings, I found that unspoken desires for control can block empathy at precisely the moment it is most needed (Beidaghi, 2022). Quiet, in many schools, is misread as indifference rather than a literacy of survival. Asking, "What made that moment heavy?" or "What would help you enter?" replaces assumption with inquiry and changes the room. The question is not "How do we make them talk?" but "How do we make it safe to speak?" The bridge is empathy, built plank by plank: a correctly pronounced name, a waited silence, a story that opens a door.

If empathy is to be more than a slogan, it must be enacted in bodies, not just argued on slides. Moreno (2025) shows that embodied experiential learning in TESOL contexts activates empathy through affect and action. When teacher candidates step into theater-inflected exercises, perspective-taking is no longer a worksheet; it becomes a scene that moves you, a line you struggle to deliver, a moment you misread and must repair. In multilingual classrooms, the body is a generous translator: gesture can stand in for vocabulary, rhythm can scaffold turn-taking, and shared laughter can lighten the cognitive load of an unfamiliar language. The point is not performance. The point is presence. After such work, climates feel less brittle. Students try a new register because the cost of embarrassment has been lowered by a shared repertoire for repair. A teacher shares a brief story about their first months in a new country and how grocery shopping felt like a secret test; hands go up. You too? In that instant, empathy stops being content to cover and becomes context to inhabit. The class is not distracted from academics; it is newly ready for rigor.

EMPATHY AND
THE SUSTAINABLE DEVELOPMENT GOALS

International frameworks can feel distant, but the SDGs breathe when they are localized to the everyday. SDG 4 (Quality Education) shows up when knowledge from home languages enters as an academic resource, not an obstacle. SDG 10 (Reduced Inequalities) appears when participation structures no longer reward only the fastest voice and grading policies honor multiple ways of showing understanding. SDG 16 (Peace, Justice and Strong Institutions) takes form when brewing conflicts meet an empathy protocol – naming the harm, mapping the feelings, imagining a different next time. SDG 17 (Partnerships for the Goals) lives in modest partnerships: a museum's multilingual labels co-written with students, a youth-made audio exhibit at a neighborhood center, a collaboration with a municipal program that supports elders or animal shelters. This local practice echoes empirical evidence that when teachers develop empathy, it strengthens their multicultural beliefs and, in turn, their multicultural teaching competence (Lin & Chung, 2024). None of this requires a heroic budget; it requires relational imagination and steady follow-through.

FROM SOFT SIGNALS TO
LASTING SHIFTS

Teachers reasonably ask how to know whether empathy "worked." In classrooms that take this stance, the signals are small but cumulative. A quiet student risks a first comment because the class now honors think-time and non-verbal entries. A group revises its plan without adult prompting after noticing a peer was sidelined. A weekly reflection reveals that students felt more "safe-to-try" after a storytelling circle. These are not soft signs; they predict dispositions, collaboration, ethical imagination, and perspective-taking, that communities and workplaces increasingly demand. As Lin and Chung (2024) show, teacher empathy predicts multicultural beliefs, which then predict multicultural teaching competence; in practice, those small signals – more multilingual participation, earlier de-escalation, and stronger collaborative outputs – are exactly the pathway their model describes. It is not a personality trait that some have and others lack; it is a practiced competency schools can nurture.

> When a teacher says, "I also learned a new language as an adult and I remember the fatigue," the room exhales.

Harvesting empathy does not mean lowering expectations. It means raising the stakes for what counts as rigorous. Teachers who treat empathy as a method move from monologic instruction to dialogic inquiry. They replace "How can I fix this child?" with "What am I being invited to learn here?" They design entry points that protect dignity – drafting privately before speaking publicly, allowing contributions in a home language alongside a bridging translation, or inviting a story in audio when writing feels too exposing that day. They normalize co-created norms and narrate their own adherence: "I'm going to pause here; I feel myself getting too quick; let's reset." They read silence with curiosity rather than suspicion and make time to revisit difficult moments instead of rushing past them.

Crucially, they tell their own stories briefly, purposefully, and with clear boundaries. The aim is not disclosure for its own sake, but connection that models courage. When a teacher says, "I also learned a new language as an adult and I remember the fatigue," the room exhales. A student replies, "My family watches the news in two languages; I can help with vocabulary." Knowledge circulates differently. Expertise becomes plural. Assessment conversations also change: students can name what they tried, where they hesitated, and what they need next. Group work produces richer artifacts because talk and responsibility are more fairly distributed. Classroom management issues do not vanish, but they surface earlier and are addressed with shared language for harm and repair. The aim is not perfection; it is a living system that can heal itself.

There is a temptation, especially under pressure, to treat empathy as a luxury postponed until after the standards are met. The opposite is closer to the truth. Empathy is how we reach standards with integrity. It is how we widen the pipeline of academic success without narrowing who counts as successful. It is how we build habits of mind, critical and creative thinking, collaboration, and self-direction, that the OECD Learning Compass associates with thriving in uncertain futures. Above all, empathy is how we interrupt dehumanization before it calcifies into policy or practice. In this sense, empathy is not an add-on to sustainability; it is its pedagogy. It is how we practice the future we claim to teach.

For educators worried about "doing it right," the path is steadier than it seems. Start with what you already carry: a small memory that taught you to listen, a text that taught you to see, a mistake that taught you to repair. Turn that memory into a minute-long story; turn that story into a design choice; turn that design choice into a routine. Repeat. The first evidence is often modest – a look of relief, a longer pause, a new voice – but its direction is clear. Over weeks, the center of gravity shifts from compliance to belonging. If culturally relevant pedagogy weaves together achievement, competence, and critique, empathy is the guiding hand that keeps those strands connected—steadying them when the day is difficult, holding them together when dialogue becomes strained, and making room for beauty in the ordinary work of learning together.

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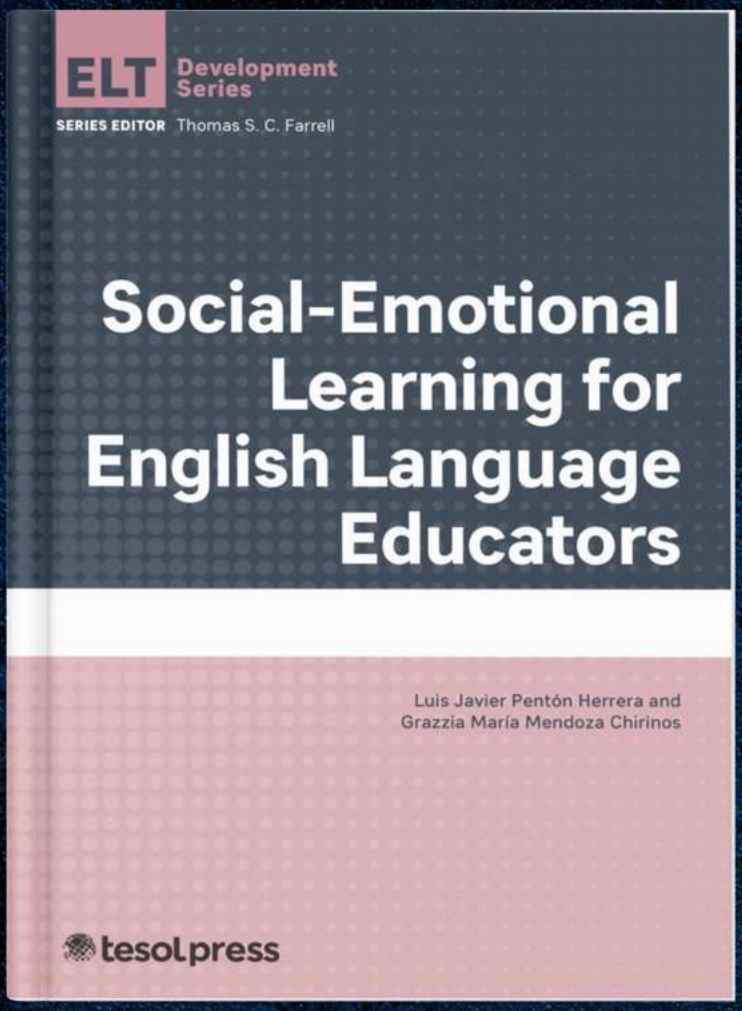

Social-Emotional Learning for English Language Educators, written by **Luis Javier Pentón Herrera** and **Grazzia María Mendoza Chirinos,** is for teachers and leaders who recognize that language education extends far beyond building linguistic skills. Rooted in the belief that teaching engages both heart and mind, this book positions SEL as a powerful, everyday tool for creating emotionally safe, inclusive, and empowering classrooms.

Drawing on their journeys as educators and trainers, the book offers practical strategies, reflective prompts, and real examples that show how SEL can be seamlessly woven into classroom interactions, curriculum planning, and assessment. Across five chapters, this book explores SEL as the foundation of effective teaching, the emotional and identity-driven experiences of multilingual learners, the social dynamics that shape belonging, and the intentional planning needed to integrate SEL into language instruction. The authors conclude with a call to view SEL not just as a set of strategies, but as a transformative mindset that strengthens relationships, fosters equity, and supports holistic developments.

Ultimately, this book reimagines language teaching as a human-centered practice, the one that cultivates resilience, trust, and connection. It invites educators to reflect, adapt, and lead with heart, ensuring that every learner feels seen, supported, and empowered to grow.

Dr. Le Dinh Bao Quoc
Head of EduVerse

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The EduVerse Newsletter is delighted to feature an insightful interview with **Luis Javier Pentón Herrera** and **Grazzia María Mendoza Chirinos**, authors of *Social-Emotional Learning for English Language Educators.*Discover their practical strategies, reflective approaches, and human-centered philosophy—offering educators a pathway to create emotionally safe, inclusive, and empowering learning environments where every student can thrive.

ASK THE EXPERTS

Welcome to **Ask the Experts**, the ultimate column dedicated to professional development in the field of education. In this dynamic and ever-evolving field, continuous growth and learning are paramount. In each issue, we explore the most commonly asked topic by interviewing invited experts for their insights, experiences, and strategies.

EduVerse: Welcome to **Ask the Experts,** our exclusive interview series spotlighting innovative voices shaping the future of teaching and learning. In this special issue – ***Growing Tomorrow: Teaching for a Sustainable Future*** – we are delighted to feature **Grazzia Maria Mendoza Chirinos** and **Dr. Luis Javier Pentón Herrera**, co-authors of *Social-Emotional Learning for English Language Educators.*

With decades of combined experience as teachers, researchers, and advocates, Grazzia and Luis explore how social-emotional learning (SEL) can become a cornerstone for sustainable education – one that nurtures empathy, resilience, and human connection alongside academic excellence.

Their book offers a vision of teaching that is deeply relational, inclusive, and transformative – an invitation for educators to teach not just the mind, but the whole individual. In this conversation, they share their reflections on the human side of sustainability, the emotional lives of teachers, and the power of SEL to help learners and educators alike flourish in an ever-changing world.

HEARTS OVER SCORES

EXCLUSIVE

SEL'S SECRET TO SUSTAINABLE CLASSROOMS

With DR. LUIS JAVIER PENTÓN HERRERA & GRAZZIA MARIA MENDOZA CHIRINOS

Luis Javier Pentón Herrera, PhD, D.Litt. (Habil.) is an award-winning Spanish and English educator and a best-selling author. In 2024, he was selected as the TESOL Teacher of the Year, awarded by the TESOL International Association and National Geographic Learning. He is a professor at VIZJA University in Poland, and his teaching and research projects are situated at the intersection of identity, emotions, and well-being in language and literacy education, social-emotional learning, autoethnography and storytelling, refugee education, and language and power.

Grazzia Maria Mendoza Chirinos, MEd, MA, is an award-winning educator with 32 years of experience in education. She was awarded the Virginia French Allen Award for Scholarship and Service in 2018 and the Outstanding Advocate Award in 2023. As a researcher at the University of Wisconsin Center for Education Research she developed the learning agenda for research to support educators and prioritized themes such as didactics, technology, and SEL. In addition, in her advocacy efforts, she contributes to highlighting women's empowerment narratives and decentering advocacy through global efforts.

PART 1 RETHINKING EDUCATION THROUGH A HUMAN LENS

Grazzia and Luis, welcome! It's such a pleasure to have you both here. To kick things off, your book opens with this powerful idea that educators teach the whole child, not just the curriculum. In a time when education so often gets laser-focused on test scores and performance metrics, why is this human-centered approach so absolutely essential?

Oh, thank you – it's wonderful to be here! Human centered education is just crucial because we really need to look at learning beyond those metrics, like standardized testing. I mean, those approaches can so easily miss out on creativity, critical thinking, empathy, and perseverance – traits that, honestly, matter the most for child and youth development, especially as skills for the future. When we teach the whole child, we're honoring their diverse backgrounds, languages, and experiences, and these are elements we weave throughout the book. By doing that, we're fostering these inclusive classrooms where everyone truly feels like they belong. And that's key – we want lifelong learners, right? For that to happen, our students need to thrive in safe spaces for learning, where they're supported and fully engaged.

Wow, Grazzia, that's spot on – honoring those diverse experiences to build belonging. Luis, what are your thoughts on this?

Absolutely. A human-centered approach reminds us that education is not just about what students know or need to learn but about who they are becoming. In my view, when we reduce the learning process to statistics or outcomes, we risk overlooking the social and emotional dimensions that make the process of learning a meaningful and lifelong activity. Teaching the whole child means recognizing that students bring their identities, languages, cultures, and emotions — that is, everything they are and everything they have at that time — into every classroom interaction. Especially today, when students are constantly exposed to violence, volatility, and instability, they need educators who see them as individuals with stories, not just learners — or should we say 'machines'? — with targets. Throughout our book, we highlight that a human-centered education cultivates all the qualities that sustain motivation far beyond test results and that contribute to building the empathetic, harmonious, and kind societies we so desperately need.

2 **That's such a compelling reminder, Luis, seeing students as whole people with stories. You know, many global sustainability talks zero in on the planet, but your work beautifully reminds us that sustainability also means sustaining people – emotionally and relationally. So, how does SEL fit into that bigger picture of creating sustainable schools and communities?**

Thank you for this question, great observation! Yes, throughout our book, we position SEL as the heart of sustainability because it sustains people. We can't have sustainable systems without emotionally healthy and connected individuals within them which, by the way, includes teachers as much as it includes students. SEL nurtures the skills needed to engage with people from all walks of life with respect and compassion, both of which are essential to sustainable communities. In schools, helping students acquire skills that will contribute to their sustainability as human beings and future professionals means helping them learn to care for themselves and others, manage emotions constructively, and communicate across differences. When students learn these skills, they become more resilient and better equipped to engage in the ever-increasingly complex social and environmental challenges our world faces. Certainly, for us, sustainability is not just about preserving resources; it's about sustaining the human being behind the teacher and the student, and sustaining hope. SEL gives us the human foundation for a truly sustainable future.

> We can't have sustainable systems without emotionally healthy and connected individuals within them which, by the way, includes teachers as much as it includes students.
>
> Luis Javier Pentón Herrera

Definitely sustaining people is one of our key messages! Deeper learning and long-term success are built in the foundation of a human infrastructure that brings everything together – schools and communities. From my time at USAID collaborating on developing SEL, part of the key approach was bringing in families and communities to collaborate and thrive together. Because SEL is not an add-on, it should be seamlessly threaded into the whole school and community systems. That means creating community partnerships, building civic engagement and fostering relational resilience to help communities weather all challenges, while supporting academics, emotional climate, and mental and emotional well-being. SEL is not a standalone strategy, it is a way of thinking that lets us care about ourselves and others!

3 **I love that image of SEL as "seamlessly threaded" throughout, Grazzia—it's so integrated. Now, let bring ourselves to language classrooms, where emotional safety plays a major role in learning. So, what does it really mean to build a classroom where students feel safe enough to take risks and express themselves freely?**

Most teachers reading my response will probably nod nod along, because we feel this in our practice every day. Building emotional safety in a language classroom starts with trust. When students feel that their mistakes will be met with patience instead of judgment, scolding, punishment, or yelling, they take more linguistic and emotional risks. In my language classes, I try to create spaces where vulnerability is seen as part of learning, and where humor, laughter, cultural exchange, and curiosity are welcome. Emotional safety also means representation; that is, seeing the identities, languages, and lived experiences of the cultures I teach about (in my case, Spanish-speaking and English-speaking cultures) as well as that of my students are seen as assets, not obstacles. At the end of the day, building an emotionally safe classroom is not about removing challenge – we need challenge to build resilience and grow – but about building the confidence to face it.

4 **Such practical wisdom there, Luis—turning vulnerability into a strength. And Grazzia, let's hear from you on how this all connects to bridging academic learning with global citizenship. In what ways can SEL help learners not only master English but also develop empathy, intercultural understanding, and that sense of shared humanity?**

Another great question! Considering global citizenship to build empathy, SEL really fosters that self- and social awareness that's key to healthy relationships, where we learn to see beyond our own perspectives and respect other viewpoints. This speaks to intercultural communication and collaboration using language as the connection to build those relationships and also be able to share values. Educators who create spaces for critical awareness – letting learners reflect on global issues like inequities, climate change, or migration – help them recognize the world's complexities and think about them through the lens of their own values and ethical reasoning. It's about gaining a more global perspective and a broader understanding of the world through others' experiences. And once learners and educators master these competencies together? Then we'll see this transformation in education that truly serves building peace and justice for all.

PART 2 EMBRACING SEL AS A TRANSFORMATIVE PEDAGOGY

5 **You both describe SEL as this cross-cutting pedagogy, not just an add-on. So, what does it look like when SEL becomes part of the teacher's mindset, rather than just another strategy?**

Oh, going back to my time at USAID, where we implemented a holistic SEL strategy, this approach unfolds in these different steps – starting in the classroom, expanding to the whole school, and then rippling out to the community. It's a model where the first step is building trust and a safe space for thriving, both personally and academically. In that space, educators are trained to spot and anticipate what might be stressful, and how to navigate those moments – to scaffold confidence and celebrate the process, not just the destination. It means bringing in constant reflection, spotting opportunities for growth, and reframing mistakes as chances to learn! And yes, it means elevating and valuing students' voices, honoring every learner's identities, values, contexts, and backgrounds – it's all connected!

That progression from classroom to community sounds so organic, Grazzia. Luis, how does it shift when it's truly embedded in the teacher's mindset?

When SEL becomes part of a teacher's mindset, it stops being another strategy and becomes how we see and interact with learners; that is, it becomes our identity and pedagogy. It's reflected in the tone of our voice, the questions we ask, and the way we respond to students' behaviors, mistakes, accomplishments, and emotions. Teachers grounded in SEL design lessons that balance cognitive challenge with social connection and emotional growth. They see every moment – Yes, even discipline or a disagreement – as an opportunity for learning and growth. This mindset also invites ongoing reflection, asking questions like "How am I feeling today as an educator?" "What energy am I bringing into the learning space?" SEL as a mindset transforms teaching into a relational practice where learning and well-being are inseparable.

6 **And speaking of emotions, they're so deeply intertwined with identity in language learning. How can educators honor students' diverse identities and emotional experiences while still holding onto academic rigor and high expectations?**

Thank you for this one – it's close to my heart. Let me start by saying clearly: identity and emotions are never separate from academic rigor or high expectations. In fact, they are the foundation of meaningful learning, and without them, no deep or lasting learning can occur. When students feel seen and respected, they engage more fully and take ownership of their growth. I encourage teachers to integrate identity work into their lessons, inviting students to connect content with their personal experiences and cultural perspectives. I also invite educators to explore new dimensions of identity with students, since language learning itself is an act of identity expansion as well as an opportunity to discover new parts of ourselves and understand our emotions in new ways. Maintaining academic rigor doesn't mean being rigid; it means setting high expectations with empathy. We can challenge students intellectually while also creating space for reflection, dialogue, and care.

7 **You also emphasize the collective aspect of SEL – building community and belonging. Could you share an example or a practical activity that really helps foster peer connections and emotional safety in a diverse classroom?**

Sure! There are several practical examples educators can use to foster belonging and build community. They range from the basics, you know, the easy-to-plan ones, like story circles. Here, learners break into small mixed groups and share a story that's meaningful to them – maybe something from their backgrounds or families. A key tip? Use a rotating talking piece to ensure everyone gets their turn to speak. And set some simple norms upfront: listen to understand, no interruptions, and those stories stay right there in the circle - confidential and safe.

Another relevant activity is creating identity maps and these can vary in intent and outcome. For individual reflection, say, each learner draws a map of their identity using words, symbols, and images that represent who they are. Some aspects to include are languages they speak, family traditions, typical foods, places that bring them comfort, their core values, and the communities they belong to. Then, they share these maps openly.

Finally, there's community reflection, which brings everyone around a common topic to discuss, uncovering those common threads and varied perspectives. This is a way to understand the things learners have in common and where their views differ. An educator could weave these three activities together seamlessly – start with the identity maps for personal insight, move into sharing circles for connection, and wrap with reflection to tie it all up. It can even be taken further and moved into sharing with families and enrich this process even more. Through these, learners and communities start truly understanding each other, becoming aware of differences and similarities, and seeing how they complement one another. It's not just about building community and belonging; it's elevating identities too.

8 Those activities sound so accessible and powerful. Now, one of the most powerful ideas in your book is that SEL begins with the teacher. But let's be real, for many educators, integrating SEL can feel like "one more thing" on an already overflowing plate. What advice would you offer to teachers who want to start small but still make a meaningful impact?

SEL can absolutely begin small, step by step, without overwhelming anyone. Start with something simpe like morning greetings: have everyone state one word to describe how they are feeling or something positive they bring to class that day. Afternoon closings can also be one word activities to describe what they learned or how they felt. Exit tickets are another easy win, can be done either through a post-it or digitally, or even a shoutout.

If educators want to level up a bit, let me share from our work implementing an integrated approach of SEL and academics in public schools in Honduras. We found that creating educator buy-in began through their understanding of their own SEL competences. Professional development in this area was key to let educators understand that SEL can't, shouldn't and honestly is not an add-on. It should be part of their daily work. Our holistic program began with capacity building of educators, and once this awareness clicked, they became models for their peers and then they all started implementing what they had learned. All the while, we trained learners and families in parallel. When the whole community gets on board, awareness spreads, shifts happen, and integrating SEL becomes just part of daily teaching and living. That's what brings real sustainability to schools and communities.

Thanks Grazzia. Luis, jumping in here, what's your take on easing into this for busy teachers?

That's such an important question. I always remind the teachers I work with that integrating SEL doesn't require a dramatic overhaul of their practice — it begins with awareness. Start small by intentionally checking in with yourself and your students: How am I feeling today? What can I do to bring helpful energy into our learning space? Even a few minutes of genuine connection can completely shift the emotional climate of a classroom. SEL begins in those moments when we slow down, listen, and respond with empathy. And I want to emphasize the importance of slowing down in our teaching not only for ourselves, but also for our students. Love, empathy, and care do not coexist with fast-paced teaching; they require patience, presence, and active listening. When we create pauses for reflection and connection, we remind our students, and ourselves, that learning is not a race but a shared human experience. Those small pauses often become the most transformative moments in education.

> Professional development in this area was key to let educators understand that SEL can't, shouldn't and honestly is not an add-on. It should be part of their daily work.
>
> Grazzia Maria Mendoza Chirinos

PART 3 HOPE, WELL-BEING AND TEACHING FOR TOMORROW

9

Both of you have worked extensively across cultures and contexts. How do you see teachers around the world embracing social-emotional learning? What trends or examples give you the most hope for the future of education?

From my experience in Latin America and the Caribbean, the USA, and other parts of the world where I've collaborated with educators, there is a high level of acceptance and need for SEL integration. Through initiatives like those from former USAID programs, SEL has been woven into education curricula by governments, recognizing its role in holistic development – so we're seeing those big policy shifts. We can also see educators who integrate local languages and community activities to foster emotional literacy and engagement as well as academic support.

One example that warms my heart is from the Garifuna communities in Honduras—they developed "Leer con Sopa" (Read with Soup) and "Leer con Café" (Read with Coffee), where the whole community gathers on weekends to cook, read books together, and just share as a group. This not only fostered community but contributed to peace-building and resilience in times of crisis or difficulties due to natural disasters and the COVID19 pandemic aftermath. It also brings organizations such as UNESCO, UNICEF, WFP and other global donor organizations to invest more in SEL programs to support professional development, access to education and access to technology. The fact that this is a global conversation, often starting right in classrooms, gives me so much hope. Teachers are these incredible change agents, perfecting safe spaces for learning and growth; students find their voice and agency to impact their communities – even in tough times; and now, SEL is becoming part of that local and global wisdom.

I love those Read with Soup and Read with Coffee. Luis, what global trends are lighting a fire for you?

I'm grateful to have the opportunity to collaborate with teachers from all over the world. Across the globe, I see teachers embracing SEL in creative, context-specific ways. In Latin America, for example, teachers often integrate storytelling and community dialogue as pathways to empathy. In Asia and Europe, educators are connecting SEL with multilingualism and global citizenship. What gives me the most hope is that SEL is becoming less about imported frameworks and more about locally rooted practices, as evident in teachers' adaptation of SEL to meet their students' realities. I also see a shift from individual well-being to collective well-being, where classrooms become spaces of healing and compassion. This global movement tells me that teachers everywhere are reimagining education as a deeply human, transformative act, especially as we become an increasingly "artificial,"as in the Artificial Intelligence, world.

10 **That adaptation to local roots—yes, that's where the magic happens. Building on hope, teaching can be both rewarding and emotionally demanding. How can school leaders and systems better support teachers' well-being as part of a sustainable education model?**

I think the first step is creating a culture of care where we are all seen as humans. Administrators, especially, should protect educators' time to focus on what's truly important for their learners, based on the context. Educators and students should be heard and become more and more involved in decision-making. Normalizing wellness programs, counseling and emotional support are also key! Leaders should lead by listening actively, being empathic and creating ripple effects within schools, districts and communities to make education emotionally and academically sustainable. When the systems include care, protection, and voice, that's when we can see lasting change.

11 **A culture of care from the top down. And to wrap this part, Social-emotional learning is ultimately about humanity – how we connect, care, and coexist. What does a truly sustainable classroom look like to you, where learning and well-being grow hand in hand?**

A sustainable classroom is one where teaching, learning, and well-being nourish each other. It's a space that honors curiosity and care in equal measure; a space where academic goals don't come at the expense of emotional health – and this is for students and teachers alike. In a sustainable classroom, relationships are central: students learn with, from, and about one another, and teachers and students develop a relationship of trust, respect, and care. Diversity is celebrated, reflection is routine, and mistakes are seen as part of growth. The teacher models balance, showing that rest, empathy, and community are part of success. Ultimately, a sustainable classroom helps teachers be healthy and happy, and prepares students not just to succeed, but to sustain themselves and others long after they leave school.

CLOSING THOUGHTS

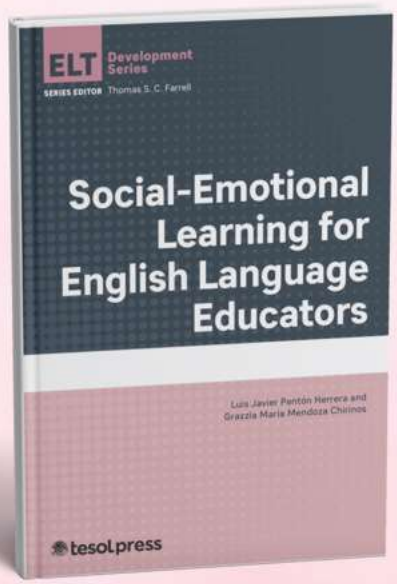
Finally, if you could leave EduVerse readers with one message from Social-Emotional Learning for English Language Educators, what would it be — especially for those striving to teach with both intellect and heart? This question is for both of you.

My final message? Teaching is our chance to build empathy, belonging, connection, and resilience. I've seen this so vividly in contexts of crisis and conflict, and I truly believe keeping it at the core makes real change possible. By honoring our humanity as educators and the humanity of our learners, we build relationships, global citizenship, and this holistic quality education where languages and cultures become bridges for the world to come together.

If I could leave one message, it's that teaching is an act of humanity. Every lesson, every interaction, is an opportunity to affirm a student's worth and potential. SEL is not separate from language or academics; it is the language of connection itself. For teachers striving to teach with both intellect and heart, remember that your presence, empathy, and authenticity already embody SEL. When we teach from a place of compassion, we help students learn not only *what* to think, but *how* to care, and that is what truly transforms education.

KEY TAKEAWAYS

- **Teach the whole child:** Prioritize human-centered education over metrics to nurture creativity, empathy, and belonging, honoring diverse identities for resilient, lifelong learners in safe spaces.
- **SEL as sustainability's core:** SEL sustains emotional health and connections for teachers and students, integrating families and communities to build resilience against global challenges and foster hope.
- **Foster emotional safety:** In language classes, build trust by embracing mistakes, vulnerability, humor, and cultural assets – boosting confidence without eliminating challenges.
- **Link academics to global citizenship:** SEL enhances empathy and intercultural skills via language, encouraging reflection on issues like migration to promote ethical reasoning and shared humanity.
- **Embed SEL in mindset:** Transform teaching by infusing SEL into daily interactions, balancing rigor with connection, and using self-reflection to turn every moment into growth.
- **Balance identity and rigor:** Integrate personal stories into lessons for deeper engagement; set empathetic high expectations to expand identities through language learning.
- **Build community practically:** Use story circles, identity maps, and reflections to highlight similarities/differences—extend to families for elevated belonging and understanding.
- **Start small for impact:** Begin with quick check-ins or pauses; professional development creates buy-in, making SEL a sustainable daily practice across communities.



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SEL AS A BRIDGE TO BELONGING & ACADEMIC SUCCESS

Grazzia Maria Mendoza Chirinos
Luis Javier Pentón Herrera

"As SEL arrives at a crossroads of practice, policy, and politics, a flexible, adaptable, responsive, and co-constructed model of culturally sustaining SEL in the classroom offers a path forward that honors and sustains the diversity of our classrooms and deepens our commitment to equity in practice." Meland & Brion-Meisels, 2024

Social-Emotional Learning (SEL) has emerged transformatively in education within the realm of multilingual (ML) classrooms. It serves both as a foundation – grounding learners' social-emotional skills, like self-awareness and responsible decision-making (CASEL, 2020) – and a bridge – translating those social-emotional skills into actions and behaviors that lead to lifelong success. SEL enables educators to cultivate inclusive environments where students' social, emotional, and cultural needs are not peripheral but at the core of their growth.

However, SEL doesn't benefit students exclusively. As Mendoza-Chirinos (2023) emphasizes, SEL is not just a set of skills for learner development only, but also a tool for the educator community in general. Everyone benefits from SEL as community relationships improve, positive role models are fostered, and managing emotions becomes part of the daily life of the schools.

THE DIFFERENT LENSES OF SEL

We can view SEL through different lenses, and in this article, we want to look at SEL skills development as key to identity, cultural belonging, building relationships, engaging families and communities, and academic flourishing. When it comes to identity, SEL nurtures its development. For MLs whose linguistic and cultural backgrounds are usually different from the dominant norms, SEL validates their lived experiences. Identity is deeply tied to emotional safety and cultural affirmation; thus, when students are encouraged to reflect on their heritage, languages, and values, they build a stronger sense of self. Pentón Herrera (2020) argues that SEL in Teaching English to Speakers of Other Languages (TESOL) settings must begin recognizing students' identities as assets, not deficits. This includes integrating students' home languages, encouraging storytelling, and fostering classroom dialogue that honors diverse perspectives. SEL practices, such as journaling, peer sharing, and community circles, allow ML students to explore who they are and how they belong.

In the context of SEL, cultural belonging could be considered a cornerstone, as without it, there is a risk of perpetuating exclusionary practices or building superficial relationships only. For ML students, cultural belonging means seeing their traditions, languages, and histories reflected in the curriculum and classroom culture. Pentón Herrera and Martínez-Alba (2021) emphasize that SEL must be culturally responsive, integrating students' backgrounds into every facet of learning. This includes using culturally relevant texts, celebrating multilingualism, and supporting learners to feel culturally anchored. The more we celebrate all these aspects of the lives and backgrounds of our learners, the more likely they are to develop self-confidence, empathy, and a sense of purpose.

> *"The more we celebrate all these aspects of the lives and backgrounds of our learners, the more likely they are to develop self-confidence, empathy, and a sense of purpose.*

Resilience is not something we are born with; it is something we build through experiences and, yes, through relationships. SEL fosters resilience by building strong, trusting connections between members of communities, and in our case, between our learners and educators. In ML classrooms where we have students who have faced trauma, crisis, displacement, or discrimination, relational SEL becomes a critical aspect of these skills development. Educators can model resilience by sharing their own stories of struggles and success, validating students' emotions, and creating habits of care. Peer relationships become another vital aspect of SEL. By creating spaces for restorative practices, consistently building cooperative learning, and engaging in peer mentoring, we support our learners in building empathy and social skills, which leads to social regulation, self- and social awareness.

Family and community engagement is a vital dimension of SEL, especially in multilingual classrooms where cultural and linguistic diversity enrich the learning environment. SEL becomes most impactful when it extends beyond the classroom to the whole school, but even more when it leaves the school's walls and trickles into the communities, the home of the learners! By involving families in SEL initiatives – through culturally responsive communication, shared decision-making, and community-based projects – trust, mutual respect, and a sense of collective responsibility are built. All of these elements contribute to student well-being, reinforcing not only the SEL core competencies, but also validating backgrounds and lived experiences and elevating voices. Jagers et al. (2018) agree that "Supporting the development of these assets should buffer children and youth from the negative impacts of internalized, interpersonal, and institutional oppression..." (p. 8).

Contrary to the misconception that SEL detracts from academic rigor, research shows that SEL enhances academic outcomes (Pentón-Herrera, 2025). Durlak et al. (2011) and Taylor et al. (2017) conducted two major meta-analyses of universal, school-based SEL programs and indicated: a) students who participated in SEL programs enhanced their academic achievements, b) academic benefits endured. Emotional regulation, goal-setting, and interpersonal skills directly support learning behavior such as persistence, collaboration, and metacognition. In ML classrooms, SEL helps students navigate the challenges of language acquisition, cultural adjustment, and academic expectations. SEL-infused instruction – such as cooperative learning, reflective writing, and scaffolded discussions – creates a safe space for intellectual exploration.

BRINGING SEL TO PRACTICE

SEL in the ML classroom requires intentional integration of social, emotional, cultural, and linguistic dimensions into everyday instruction. SEL must be embedded in routines, curriculum design, and classroom interactions – not treated as a separate or occasional activity. Some examples include:

- Morning meetings that build community and emotional check-ins
- Language-rich SEL activities such as emotion vocabulary, role-play, and storytelling
- Culturally responsive pedagogy that integrates students' backgrounds into content
- Linguistically accessible supports that have visual, materials in learners' languages and opportunities to translanguage
- Collaborative projects that foster teamwork and communication
- Reflective assessments that include self-evaluation, co-evaluation, and self-goal-setting

By creating safe spaces for learning through consistent habits and honoring diverse voices, we foster thriving learners socially and academically.

Other ways to bring SEL into academics include:

- **Foster an academic mindset:** Set expectations for success by asking learners about the way they think, using specific feedback to drive improvement, showing varied models of what success looks like, and especially communicating that mistakes are a path to learning and growth.
- **Align SEL to academic objectives:** If a classroom objective is to use a specific communication mode, integrate SEL by connecting to what others could respond to the communication received, what others might bring as perspectives, and becoming an active listener in the process.
- **Interactive instructional practices:** To understand and build competencies, it is necessary to practice in varied ways. Journaling by responding to specific SEL prompts related to feelings, understanding others' opinions, or why people behave in certain ways. Collaborative problem-solving, when a whole team comes together with the same goal in mind. Establishing goals and monitoring progress.
- **Support emotional intelligence development:** Take the time to recognize emotions, explain them, and express them positively. Name the feelings and consider together ways to channel them.

> *When teachers model SEL competencies, the ripple effects are infinite and transformative of school culture and outcomes.*

As educators, SEL can't be only a pedagogical tool – it needs to become part of our pedagogy. Empowered educators recognize that their emotional intelligence and cultural competence directly influence the environment of their classroom. Hence, engaging in SEL as a professional practice requires cultivating the core competencies while building authentic relationships with learners, families, and communities. Pentón Herrera and Martínez-Alba (2021) advocate for teacher self-care and professional learning communities that promote SEL growth, noting that emotionally attuned educators are better equipped to foster resilience and belonging in diverse classrooms. When teachers model SEL competencies, the ripple effects are infinite and transformative of school culture and outcomes.

Ultimately, the pathway to equity and excellence in education through SEL bridges a gap in academic achievement and emotional well-being between cultural identity and social integration. In multilingual classrooms, SEL affirms that every student – regardless of background, language, or immigration status – deserves to be seen, heard, and valued. By centering SEL, educators dismantle deficit narratives and build inclusive spaces where students flourish as whole human beings. SEL is not a luxury or trend – it is a justice-centered framework that reimagines education as a place of healing, empowerment, and endless possibilities!

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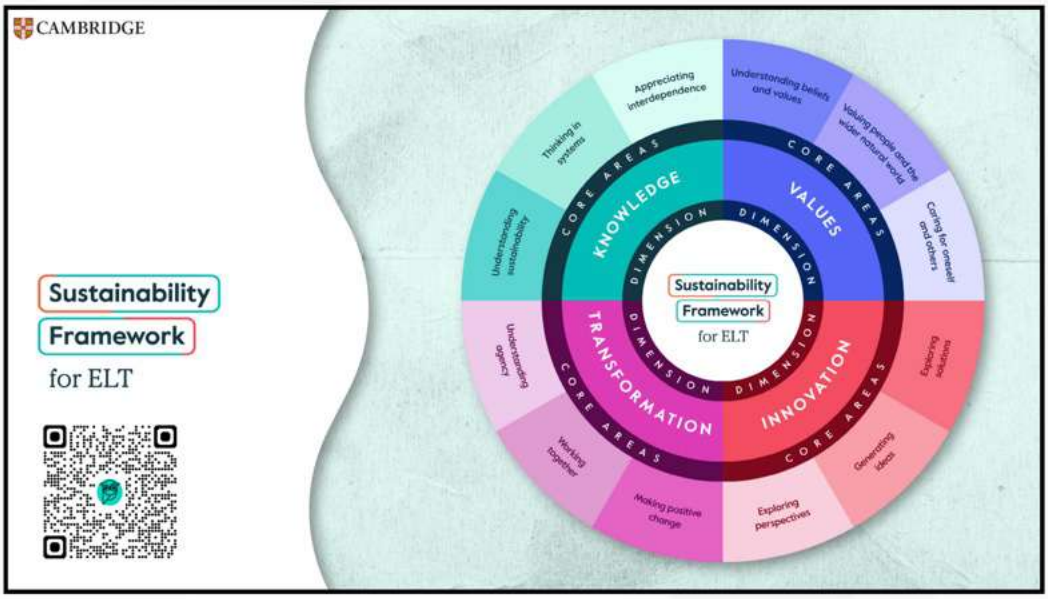
SPECIAL INTRO FRAMEWORK

growing tomorrow
TEACHING FOR A SUSTAINABLE FUTURE

CAMBRIDGE SUSTAINABILITY FRAMEWORK for ELT



The Sustainability Framework for ELT was created to help educators clearly understand what sustainability means in the language classroom and how to embed it into everyday teaching. Grounded in extensive research, the framework offers a practical way to identify and develop the skills learners need to become informed, empathetic, and innovative contributors to environmental, social, and economic well-being.

The framework organizes sustainability into four key Dimensions — Knowledge, Values, Innovation, and Transformation. Each Dimension is broken down into Core Areas, which represent the essential skills and behaviours required for sustainable thinking and action.

EVERY CLASSROOM COUNTS: BRINGING ENVIRONMENTAL EDUCATION TO LIFE

Marcela Villan

THE ENVIRONMENT: OUR SHARED CLASSROOM

In today's world, the environment is no longer a topic reserved for science lessons or Earth Day campaigns. It is the backdrop of every decision we make, the stage on which our lives unfold, and the shared responsibility of all generations.

Climate change, biodiversity loss, pollution, and resource depletion are not distant issues but realities shaping the way we live and the future we are handing to our children. For this reason, environmental education must move beyond a single subject or a once-a-year event. It needs to be woven into every classroom, at every grade level, and across every discipline.

World Environment Day, celebrated every year on June 5th and coordinated by the United Nations Environment Programme (UNEP), serves as a reminder of this urgency. Each year, a theme is chosen, whether climate change, biodiversity, or sustainable consumption, to highlight the most pressing challenges of our time. However, without a lasting impact in the classroom, these campaigns risk becoming symbolic gestures. Schools have the unique power to transform awareness into action, equipping young people with the knowledge, skills, and values they need to become responsible stewards of the Earth.

WHY WE NEED ENVIRONMENTAL EDUCATION

Decades of population growth and unsustainable human activity — from burning fossil fuels and deforestation to overconsumption — have left deep scars on our planet. The consequences are undeniable:

- ⚠ Climate disruption
- ⚠ Alarming rates of species extinction
- ⚠ Land degradation
- ⚠ Widespread pollution

The outlook may seem bleak, but change is still possible if we work collectively. Governments, organizations, communities, and individuals must all come together with one clear aim: protecting and conserving the environment for present and future generations. And surprisingly, teachers, in particular, play an **essential role** in finding and fostering solutions. By bringing **Environmental Education** into the classroom, educators promote awareness from early stages and inspire individuals and communities to take action toward a sustainable future.

WHAT IS ENVIRONMENTAL EDUCATION?

Environmental Education consists in increasing people's understanding and awareness of the environment and the interconnectedness between human activities and the natural world. It:

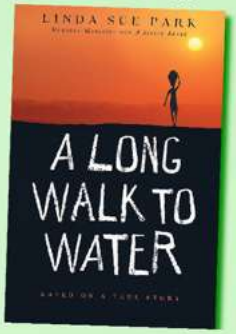
- Encompasses a wide range of educational practices and methods that aim to foster a sense of responsibility, knowledge, skills, attitudes, and values necessary for individuals to contribute to environmental conservation.
- Engages individuals of all ages and backgrounds in promoting critical thinking and problem solving skills to help find a solution to these present day issues.
- Involves hands-on experiences and develops a sense of responsibility that foster a connection between individuals and nature and encouraging sustainable behaviours.

By including Environmental Education in the classroom, teachers equip students with the necessary tools to become environmentally literate and active participants in creating their own future. They can empower them to make informed decisions, take responsible actions, and become advocates for environmental conservation and sustainability. Bringing Environmental Education in the classrooms help promote of the concept of sustainable development, the opportunities it provides for interdisciplinary projects and the nurturing of Global Citizenship by connecting with local, national and global perspectives of a same issue.

HOW TEACHERS CAN EMBED ENVIRONMENTAL EDUCATION

How can all this fit in today's classroom through a mere English language class, for example? First of all, by remembering that teachers do not only teach a language, they teach HUMAN BEINGS, and these human beings need to be aware of the circumstances that surround them. The educators of today must open their students' eyes to what lies ahead, not in a gloomy way but in a motivating, encouraging positive manner. Here are some ways to do so:

"A LONG WALK TO WATER" BOOK



1. Using literature in the language lessons that deal with environmental issues. Parker's "A Long Walk to Water" is an excellent example, telling the story of an African girl walking long distances every morning in search of water.

GRETA THUNBERG

2. Organizing field trips to help students get in contact with nature and motivate them to take action for it.

3. Making use of infographics on environmental topics that show solutions to worldwide problems.

4. Working with the writing of biographies of people connected with the environment, such as Greta Thunberg or Jane Goodall.

5. Inviting guest speakers to get student connect with environmental experts in the area.

6. Watching movies like The Lorax, which motivate students to act positively.

7. Encouraging sustainable practices like recycling or composting.

8. Using project-based learning to help students connect social, economic and environmental perspectives of an issue.

THE LORAX MOVIE

Environmental learning can be embedded in and enrich every subject: When we bring environmental awareness into mathematics, students can learn about data through real climate statistics. In literature, stories and novels can reveal human relationships with nature and explore ethical dilemmas. In history classes, learners can trace how societies have used—and misused—natural resources over time. In art and music, creative expression can spark reflection on our connection with the planet. Language classes can integrate writing activities that focus on persuasive essays or speeches advocating for environmental causes. In social studies, students might investigate the consequences of deforestation or examine how different countries respond to environmental challenges. Even physical education can connect to the outdoors, fostering appreciation for natural spaces and healthy lifestyles that reduce environmental footprints.

In short, environmental education is not an "extra, " but an essential lens that enriches learning, nurtures critical thinking, and prepares students to face complex global challenges with creativity and compassion.

CHALLENGES AND HOW TO OVERCOME THEM

Although the possibilities to take Environmental Education to the classrooms seem endless, there is one big drawback that must be taken into consideration: Teachers do not have background knowledge on the subject due to the fact that this topic is rarely part of teacher preparation programs.

To overcome this challenge, teachers can take proactive steps to build their own knowledge and confidence in Environmental Education.

- Access open online courses: There is a growing number of open-access resources, including online courses, webinars, toolkits, and teaching materials provided by reputable organizations such as UNESCO, UNEP, and national ministries of education.
- Explore Environmental Education content: The most important educational publishing companies, such as Cambridge University Press, as well as institutions like the British Council, are also beginning to include Environmental Education content and sustainability-focused resources in their materials.
- Engage in professional learning communities, both locally and globally, can also offer valuable support and inspiration.
- Collaborate with environmental experts, NGOs, or local sustainability initiatives to bring real-world perspectives into the classroom.

With a mindset of lifelong learning and curiosity, every teacher can meaningfully integrate sustainability — even without formal specialization.

SCHOOLS AS LIVING LABORATORIES

Embedding environmental perspectives into everyday lessons, teachers can make sustainability part of the fabric of education rather than an isolated theme. This approach develops transversal skills such as critical thinking, problem solving, empathy, and collaboration—skills that are indispensable in tackling the complex environmental issues of today. Moreover, students begin to see themselves not as passive observers but as empowered individuals whose choices matter.

Schools also have the opportunity to lead by example. Adopting eco-friendly practices—such as reducing waste, conserving energy, or maintaining school gardens—turns campuses into living laboratories where students can see theory put into practice. These experiences are powerful because they link knowledge to real-world action, demonstrating that protecting the environment is not just an idea, but a daily habit.

FROM AWARENESS TO ACTION

Ultimately, environmental education in all classes nurtures a sense of global citizenship. It reminds students that they are connected to a wider community and that their decisions ripple outwards to affect others, both locally and globally. If every classroom becomes a place where care for the Earth is taught, practiced, and valued, then schools will not only educate minds but also cultivate stewards of the planet, young people ready to make the difference that our world urgently needs.

All this being said, one main idea must be kept in mind: Every small step counts. Small actions multiplied by a lot of people will make the big difference that the world needs. Educators play a crucial role to accomplish this by having the possibility of building people with a new set of values towards nature, of making students active participants in creating a more sustainable and environmentally conscious society and of creating a new generation of real agents of change.

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AI-DRIVEN SUSTAINABILITY EDUCATION FOR JOB CREATION IN GLOBAL MARKETS

Dr. Irving Martinez

When Technology displaces workers, Education creates opportunities.

Artificial intelligence is eliminating jobs—and creating them. Companies racing to access global markets desperately seek workers who understand sustainability, ethics, and innovation. Governments are betting billions on green technology. Entrepreneurs are building ventures in sectors that barely existed five years ago. The paradox is real: while AI disrupts employment, it simultaneously opens unprecedented pathways for those prepared to walk them.

This article explores a transformative approach to education that doesn't ignore the crisis of technological displacement—it addresses it head-on. By embedding AI-driven sustainability education into core curricula from K-12 through higher education, educators can develop global citizens who actively create jobs, launch sustainable ventures, and gain meaningful access to international markets. Aligned with SDGs 4 (Quality Education) and 8 (Decent Work and Economic Growth), this approach enables people and organizations to build sustainable business models, achieve Net Zero and Triple Bottom Line goals through circular economy principles, master circular design to build closed-loop supply chains, and drive environmental sustainability alongside social justice and genuine economic development.

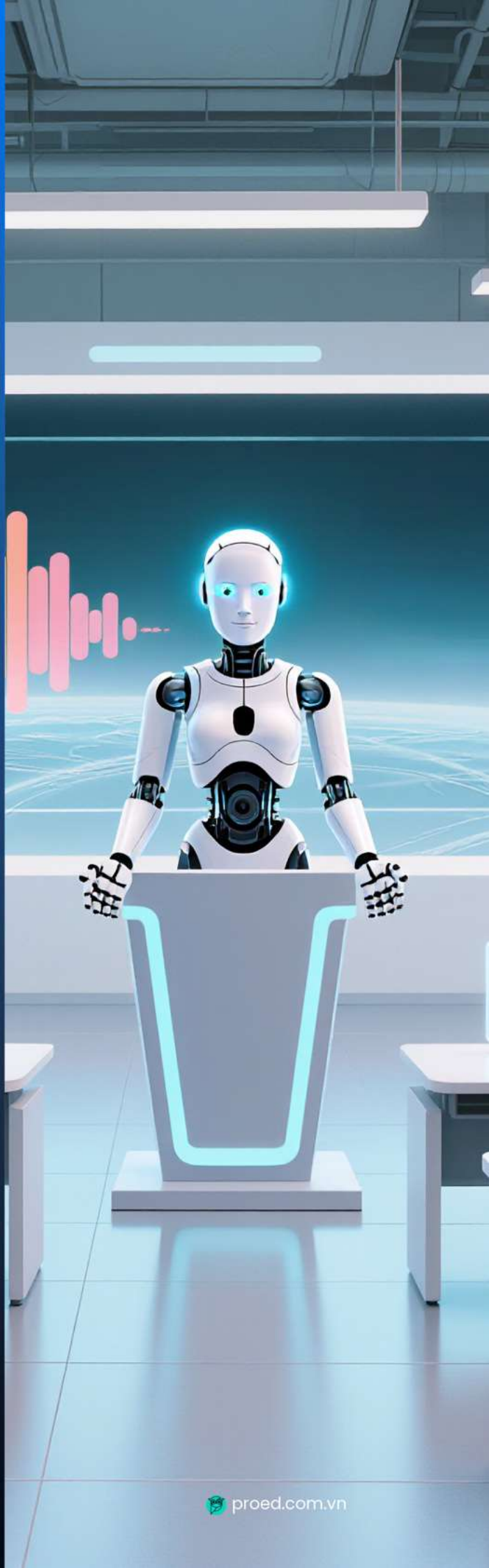
The AI Paradox: Crisis as Opportunity

Artificial intelligence is revolutionizing industries at breathtaking speed, automating jobs across sectors and displacing millions of workers worldwide. Manufacturing, customer service, data analysis, and creative fields face unprecedented disruption. Yet within this crisis lies an extraordinary opportunity that education can seize.

While AI displaces traditional employment, it simultaneously creates demand for new skills, new industries, and new types of work that don't yet exist. Companies seeking to access global markets must now meet increasingly stringent sustainability standards. They need employees who understand environmental impact, can design circular economies, and can lead ethical automation. Governments are investing billions in green technologies. Entrepreneurs are launching ventures in renewable energy, sustainable agriculture, and ethical robotics. The jobs are there—but only for those prepared to fill them.

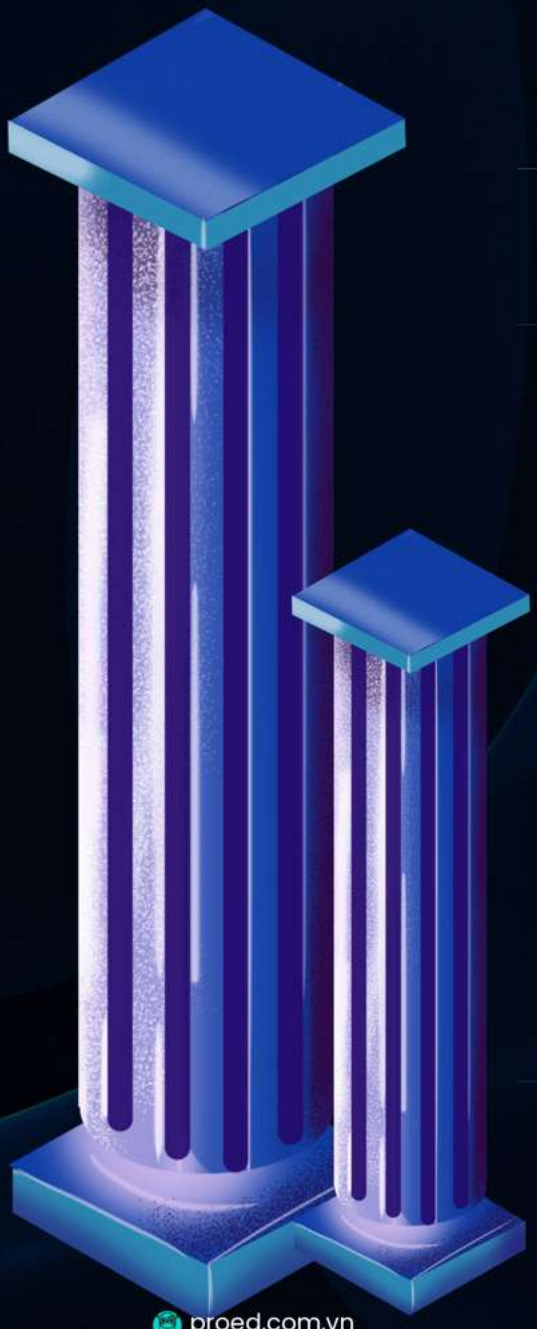
This is where AI-driven sustainability education becomes transformative. By embedding sustainability principles and AI literacy into K-12 and higher education curricula, educators equip students not as passive victims of technological change, but as active creators of sustainable futures and generators of meaningful employment.

While AI displaces traditional employment, it simultaneously creates demand for new skills, new industries, and new types of work that don't yet exist.



4 Pillars of Transformation

A transformative approach is structured around four interconnected pillars:



PILLAR 1: CREATION

The development of AI tools, such as the AI Sustainability Toolkit, powered by prompt innovation, enables the embedding of sustainability into everyday lessons across all subjects. Prompt innovation, the strategic design of carefully crafted instructions that guide AI systems toward specific educational outcomes—allows educators to customize learning experience without requiring deep technical knowledge. Rather than treating sustainability as a separate unit, students encounter it in mathematics, literature, history, and science. Through inclusion of these tools in core curricula, students move beyond theoretical understanding to actual venture creation. Built on standardized lean startup methodologies integrated through prompt innovation, the toolkit generates real experiences for students, educators, and entrepreneurs—not simulations or case studies. Ideally, the toolkit personalizes according to each academic institution's unique context, culture, and educational priorities, enabling authentic learning where students tackle actual community sustainability challenges while building exportable solutions for international markets.

PILLAR 2: GOVERNANCE

The establishment of ethical guidelines in collaboration with academics, policymakers, and business leaders ensures fair access and alignment with international sustainability norms. As AI is integrated into education, it does so transparently, equitably, and with safeguards against bias. Students learn not only from AI but also about AI—understanding how these tools work, where bias can hide, and how to use technology responsibly. This governance framework ensures that AI-driven education strengthens rather than undermines equity.

PILLAR 3: EXECUTION

The integration of AI-driven technologies into core disciplines includes platforms for launching sustainable startups, tools for designing ethical automation, and robotics labs for social innovation. Students design AI-powered irrigation systems that reduce water waste. Medical students develop ethical frameworks for healthcare robotics. Business students prototype sustainable products using AI analytics. Many of these projects evolve into actual ventures that create employment and generate revenue.

PILLAR 4: IMPACT

The use of AI analytics measures what matters: students' sustainability literacy, their capacity to generate jobs, and their contributions to business sustainability. Tracking whether graduates launch ventures, how many jobs they create, how their companies perform in global markets, and how they contribute to SDG progress ensures accountability and continuous improvement.

Building Resilience Through Relevance

The narrative around AI and employment often focuses on loss. This approach proposes a narrative of adaptation and creation. When students learn through sustainability-focused, AI-integrated education, they develop the technical skills—data analysis, coding, and robotics programming—that employers desperately seek. They cultivate the soft skills—critical thinking, adaptability, ethical reasoning, and collaboration that automation cannot replace. They internalize the values—care for environment, commitment to social justice, understanding of interconnected global systems—that define responsible leadership.

This is education that builds resilience through engagement with real challenges. A student designing a sustainable agricultural robot isn't learning abstract programming; they're solving food security, creating rural employment, and building marketable skills. A student launching a green energy startup isn't writing a business plan exercise; they're entering global markets while developing entrepreneurial competence.

Global Markets and Local Impact

The global marketplace increasingly demands sustainability. Companies accessing international markets must meet environmental standards, provide transparent supply chains, and demonstrate social responsibility. This is economic necessity, not virtue signaling. Governments subsidize green technology. Investors screen for ESG criteria. Consumers vote with their wallets for sustainable products.

Students prepared by AI-driven sustainability education are positioned to capture these opportunities—whether by launching their own ventures, leading sustainability initiatives in established companies, or innovating in emerging sectors like ethical robotics, regenerative agriculture, and circular economy design. They understand how to create machines that make other machines, building supply chains with genuine social impact. They know how to scale solutions across regions and cultures. They bring both the technical literacy and the ethical grounding that global markets increasingly require.

Real Learning, Real Stakes

What distinguishes this approach is its commitment to authentic experience over simulation. Students don't play-act entrepreneurship through case studies; they launch actual businesses. They don't theorize robotics ethics in classrooms; they design and build systems that will be used. They don't read about sustainable agriculture; they develop innovations that farmers can implement.

This is possible when AI tools handle the routine aspects of learning—checking understanding, personalizing pacing, providing instant feedback—freeing educators to guide students through real-world projects. The toolkit adapts to each institution's context and resources, ensuring that whether in a well-resourced urban school or a rural community facing economic transition, students engage with authentic challenges.

Preparing for Tomorrow While Addressing Today

The displacement caused by AI is real and demands serious response. Millions face uncertain futures. Communities dependent on traditional industries need economic alternatives. Young people need assurance that education leads somewhere meaningful. AI-driven sustainability education addresses all of these by creating pathways to employment in growth sectors, equipping people with skills for jobs that don't yet exist, and embedding education within communities' actual economic opportunities.

This is not a solution that eliminates change—that would be impossible. But it is a solution that helps people navigate change with agency, competence, and purpose. It acknowledges the AI paradox honestly: yes, jobs are disappearing, but new opportunities are emerging, and education can be bridged.

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TRANSFORMING EDUCATION:

FROM "TEACHING ABOUT" TO "LEARNING FOR" SUSTAINABILITY

Dr. Mohammad Haseen Ahmed

In an era defined by rapid environmental shifts, social inequalities, and technological disruptions, education should evolve beyond traditional models to prepare learners for a volatile, uncertain, complex, and ambiguous **(VUCA) world**.

What is VUCA?

This article explores a paradigm shift from "teaching about" sustainability – transmitting fixed knowledge – to "learning for" sustainability, where learners actively engage in shaping sustainable futures. Guided by the OECD Learning Compass 2030 framework, this approach emphasizes holistic learning, learner agency, and innovative pedagogies. By embedding sustainability as a central lens, educators empower learners to navigate and address global challenges. Drawing on recent research in educational paradigms, sustainability education, and interdisciplinary teaching, this piece proposes actionable strategies for educators.

1 CORE PHILOSOPHY: FROM "TEACHING ABOUT" TO "LEARNING FOR"

The traditional model of education often focuses on "teaching about" subjects – presenting facts about history, science, or mathematics in isolation. In contrast, "learning for" sustainability prioritizes purposeful application, where knowledge serves real-world goals like environmental stewardship and societal well-being. This shift aligns with global calls for education that equips learners to navigate uncertain futures (OECD, 2019).

1.1 UNDERSTANDING THE SHIFT IN EDUCATIONAL PARADIGMS

The move from "teaching about" to "learning for" marks a reorientation from passive knowledge acquisition to active, transformative learning. Traditional paradigms like behaviourism, while effective for foundational knowledge, emphasized rote memorization and teacher-led instruction. Modern constructivist and transformative approaches, however, prioritize experiential learning and critical reflection (Mezirow, 1991). For example, teaching about climate change might involve memorizing facts about carbon emissions, while learning for sustainability encourages learners to design local solutions, such as community recycling programs. This shift enhances engagement and retention, as learners connect learning to real-world impact (Sterling, 2021).

1.2 SUSTAINABILITY AS A LENS FOR HOLISTIC LEARNING

Sustainability serves as a unifying framework for holistic education, integrating environmental, social, and economic dimensions. Rather than a standalone subject, it becomes a lens for interdisciplinary inquiry, fostering systems-level understanding. For instance, learners might explore how consumer choices affect global ecosystems, linking personal actions to planetary health (Wals, 2020). This approach cultivates empathy, ethical reasoning, and resilience, creating meaningful educational outcomes.

1.3 FOSTERING LEARNER AGENCY THROUGH PURPOSEFUL LEARNING

Purposeful learning empowers learners by fostering agency (the ability to direct their own educational journeys). In the "learning for" model, learners set goals aligned with personal and societal needs, shifting from passive recipients to active contributors. Research shows that purposeful activities, such as community-based sustainability projects, enhance intrinsic motivation and self-efficacy (Deci & Ryan, 2000). This agency equips learners to adapt to challenges like climate adaptation or social justice.

1.4 ALIGNING WITH THE OECD LEARNING COMPASS 2030

The OECD Learning Compass 2030 provides a framework for this shift, emphasizing competencies such as the ability to create new value, reconcile tensions, and take responsibility (OECD, 2019). It prioritizes learner agency, well-being, and transformative learning to navigate sustainable futures. For example, the Compass advocates anticipatory thinking encouraging learners to envision, design, and prepare for future scenarios, aligning with the "learning for" philosophy.

2 DISTINGUISHED TEACHING METHODOLOGIES ALIGNED WITH THE COMPASS

To operationalize this philosophy, educators can adopt methodologies aligned with the OECD Learning Compass 2030. These approaches - scenario-based learning, project-based learning (PBL), systems thinking, and antidisciplinary projects - promote adaptability, critical thinking, and self-direction. Each methodology below is illustrated through a practical classroom example.

2.1 SCENARIO-BASED LEARNING & DESIGN THINKING FOR ADAPTABILITY

Scenario-based learning immerses learners in realistic, hypothetical situations to build adaptability, while design thinking encourages flexible problem-solving through empathy-driven ideation, prototyping, and iterative testing (IDEO, 2015). Together, these methods help learners navigate uncertainties.

Classroom example: In a high school geography class, learners are tasked with planning a city's response to rising sea levels due to climate change. They use scenario-based learning to analyze a hypothetical coastal city, considering factors like infrastructure and population displacement. Applying design thinking, they empathize with affected communities, brainstorm solutions (e.g., green infrastructure such as permeable pavements), prototype models using digital tools, and test their ideas through peer feedback. This approach fosters adaptability, creative problem-solving, and systems awareness, aligning with the Compass's focus on navigating complexity.

2.2 SYSTEMS THINKING AND CRITICAL INQUIRY FOR CRITICAL THINKING

Systems thinking encourages learners to view issues as interconnected networks, while critical inquiry encourages questioning assumptions and evidence. These methods promote reflective judgment and ethical decision-making, essential for sustainability challenges (Wals, 2020).

Classroom Example: In a middle school science class, learners study the impact of deforestation on local ecosystems. Using systems thinking, they collaboratively map connections between deforestation, biodiversity loss, and economic impacts, creating a visual diagram to trace ripple effects. Through critical inquiry, they question the reliability of sources (e.g., industry reports vs. scientific studies) and debate trade-offs involved in reforestation policies. This approach deepens analytical skills and aligns with the Compass's emphasis on ethical reasoning.

2.3 PROJECT-BASED LEARNING WITH PERSONAL LEARNING GOALS FOR SELF-DIRECTION

Project-based learning (PBL) engages learners in real-world problems through hands-on projects, while personal learning goals enhance self-direction by allowing learners to tailor projects to their interests (Larmer et al., 2015). This fosters agency and skill retention.

Classroom Example: In a secondary school environmental studies class, learners undertake a PBL project to develop a sustainable agriculture model for their community. They set personal learning goals, such as mastering soil health techniques or exploring organic pest control. Working in teams, they research, design, and present a small-scale garden plan, incorporating feedback from local farmers. This project encourages self-direction and aligns with the Compass's focus on agency.

2.4
SYNTHESIZING APPROACHES: THE ANTIDISCIPLINARY PROJECT

Antidisciplinary projects blend disciplinary boundaries to address multifaceted issues, dissolving traditional silos to encourage innovative solutions. This synthesis fosters holistic competencies, preparing learners for complex problems (Sterling, 2021).

> **Classroom Example:** In a high school interdisciplinary course, learners tackle sustainable urban design. Combining geography, the arts, and technology, they create a city model that integrates renewable energy, green spaces, and equitable housing. They use scenario-based learning to predict urban challenges, systems thinking to analyze resource flows, and PBL to prototype their designs. This antidisciplinary approach encourages boundary-crossing innovation, aligning with the Compass's vision of holistic learning.

3 A PRACTICAL GUIDE
HOW TO SHIFT TO "LEARNING FOR" SUSTAINABILITY

Transitioning from "teaching about" to "learning for" sustainability requires intentional steps, but educators may face challenges. Below is a practical guide with steps, common obstacles, and solutions.

STEP 1:
REFRAME CURRICULUM GOALS

Align curricula with sustainability outcomes, integrating environmental, social, and economic themes across subjects. For example, a math class could analyse energy consumption data, while a literature class explores narratives of environmental justice.

- **Challenge:** Resistance to curriculum change due to standardized testing pressures.
- **Solution:** Start small by embedding sustainability in existing units (e.g., using real-world data in math problems) and advocate for flexibility in assessment frameworks.

STEP 2:
ADOPT ACTIVE LEARNING METHODOLOGIES

Incorporate scenario-based learning, systems thinking, PBL, and antidisciplinary projects. Begin with one methodology, such as a PBL unit, to build confidence.

- **Challenge:** Lack of teacher training in these methodologies.
- **Solution:** Seek professional development or local network through online platforms (e.g., UNESCO's sustainability education resources) or peer collaboration to share best practices.

STEP 3:
FOSTER LEARNER AGENCY

Encourage learners to co-create personal learning goals and engage in projects that address local sustainability issues. Provide choices in project topics to enhance motivation.

- **Challenge:** Learners' initial discomfort with self-directed learning due to familiarity with teacher-led models.
- **Solution:** Scaffold agency with guided goal-setting sessions and provide templates for project planning to build confidence.

STEP 4:
BUILD COMMUNITY PARTNERSHIPS

Collaborate with local organizations (e.g., environmental NGOs, community gardens) to ground projects in real-world contexts, making learning relevant and impactful.

- **Challenge:** Limited access to community resources in some regions.
- **Solution:** Use virtual partnerships or online platforms to connect with experts, such as scientists or policymakers, for guest lectures or project feedback.

STEP 5:
ASSESS HOLISTICALLY

Shift emphasis from traditional exams to assessments that value process, reflection, and impact, such as project portfolios or reflective essays on sustainability challenges.

- **Challenge:** Institutional reliance on standardised tests.
- **Solution:** Integrate alternative assessments gradually, such as rubrics that evaluate critical thinking and collaboration, and share success stories to gain administrative support.

STEP 6:
REFLECT AND ITERATE

Regularly review and evaluate the effectiveness of these approaches through learner feedback and outcomes. Adjust strategies based on what works best in your context.

- **Challenge:** Limited time for reflection and planning
- **Solution:** Use collaborative planning time with colleagues to streamline processes and share resources, such as lesson plans or assessment tools.

The shift from "teaching about" to "learning for" sustainability, guided by the OECD Learning Compass 2030, offers a transformative vision for education. By adopting methodologies like scenario-based learning, systems thinking, PBL, and antidisciplinary projects, educators can cultivate adaptable, critical, and self-directed learners. Real-world classroom examples and a practical guide provide actionable steps for teachers to implement this shift. Despite challenges like curriculum constraints or lack of training, solutions such as professional development and community partnerships can pave the way. This approach empowers learners to understand and actively shape a sustainable future, equipping them to thrive in a complex world.

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Dr. Mohammad Haseen Ahmed emerges as an exemplary figure in the realm of education, boasting an illustrious career that spans over three decades. His expertise is both vast and nuanced, encompassing roles as an educator, trainer, curriculum architect, technological mentor, academic advisor, research mentor, and a senior manager in Continuing Professional Development (CPD). Dr. Ahmed's contributions are particularly notable in the fields of ESOL, EFL, ESL, and immersive language programs, where he has left an indelible mark in prestigious language institutions, vocational training, adult education, and special educational needs sectors.

growing tomorrow
TEACHING FOR A SUSTAINABLE FUTURE

BUILDING TOMORROW TOGETHER: EMPOWERING STUDENTS THROUGH COLLABORATION

Alexa Rose Pettinari

Climate change, greenhouse gas, decarbonization, sustainable development... All of these terms can get fairly overwhelming, especially if you're focused on more immediate concerns (like the fact that little Johnny is still sticking pencils up his nose). But sustainability is a necessary part of a complete education.

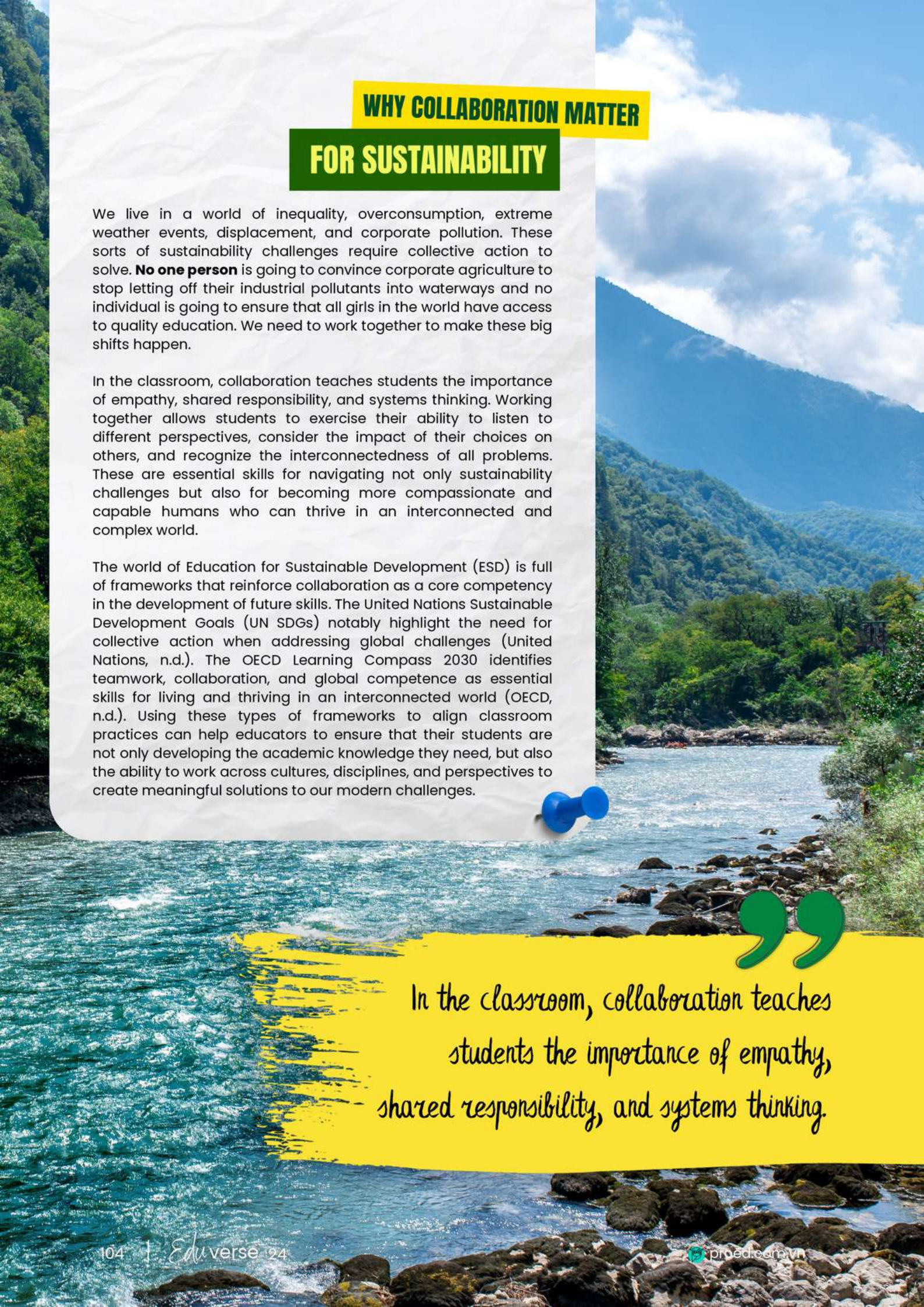
No single student will solve climate change, and no single teacher can erase climate anxiety. But classrooms are the bedrock of the collaboration we need to start building solutions. Teaching for sustainability means preparing our students for the future; and collaboration is the cornerstone of giving them, and their world, a fighting chance.

WHY COLLABORATION MATTER FOR SUSTAINABILITY

We live in a world of inequality, overconsumption, extreme weather events, displacement, and corporate pollution. These sorts of sustainability challenges require collective action to solve. **No one person** is going to convince corporate agriculture to stop letting off their industrial pollutants into waterways and no individual is going to ensure that all girls in the world have access to quality education. We need to work together to make these big shifts happen.

In the classroom, collaboration teaches students the importance of empathy, shared responsibility, and systems thinking. Working together allows students to exercise their ability to listen to different perspectives, consider the impact of their choices on others, and recognize the interconnectedness of all problems. These are essential skills for navigating not only sustainability challenges but also for becoming more compassionate and capable humans who can thrive in an interconnected and complex world.

The world of Education for Sustainable Development (ESD) is full of frameworks that reinforce collaboration as a core competency in the development of future skills. The United Nations Sustainable Development Goals (UN SDGs) notably highlight the need for collective action when addressing global challenges (United Nations, n.d.). The OECD Learning Compass 2030 identifies teamwork, collaboration, and global competence as essential skills for living and thriving in an interconnected world (OECD, n.d.). Using these types of frameworks to align classroom practices can help educators to ensure that their students are not only developing the academic knowledge they need, but also the ability to work across cultures, disciplines, and perspectives to create meaningful solutions to our modern challenges.



> In the classroom, collaboration teaches students the importance of empathy, shared responsibility, and systems thinking.

BUILDING COLLABORATIVE SKILLS
IN THE CLASSROOM

Going outside of structured projects, educators can prioritize collaboration in everyday classroom practices. The simple routines we learn in teacher training like peer feedback, cooperative problem-solving, or even group reflection activities can be repeated opportunities for students to practice their collaborative skills of listening, negotiating, and supporting each other. Micro-collaborations can help to reinforce the habits that are needed for larger, more complex challenges students will face and help them to internalize values such as fairness, care for others, and accountability. These experiences, repeated over time, can not only build skill, but also confidence. This enables learners to see and approach sustainability challenges with creativity, resilience and understanding that meaningful change is rarely achieved in a silo.

Assigning group work isn't the only way to foster collaboration. Every educator knows that group work can sometimes be a hindrance to collaboration when students are not engaging consistently. Instead of slapping group work at the end of another module, think instead about intentionally designing experiences that allow students to practice working together, solving problems collectively, and learning from one another; so that by the time they get to the group work, they have the ability to do it well.

Group projects are one of the most effective ways to culminate these skills, but not necessarily cultivate them. When students collaborate on a shared task they negotiate rules, share responsibilities, and manage their time effectively. If the processes leading up to this point are not focused on developing those smaller skills individually, students are left unprepared to handle the task. But it is important to remember that this skill's culmination in group projects is necessary to teach students accountability and give them a sense of ownership over their own learning (Anderson & Korpås, 2022).

Another powerful strategy to promote collaborative skills is peer teaching. Students assume the role of instructor for their peers and are guided to work together, exchange ideas, and actively engage in problem-solving to deepen their understanding of the content while practicing communication, empathy, and leadership skills. According to Ge (2023), this learner-centric approach encourages students to interact in a meaningful way which enhances their awareness of cooperation and also helps them to develop an ability to collaborate effectively. This strategy also nurtures a classroom culture of reciprocity, allowing students to see their role in supporting the learning and growth of their peers.

Real-world problem solving integrated into collaborative work can help to further strengthen these skillsets. Students who are tasked with finding solutions to real problems, such as designing a sustainable community initiative or creating a school-wide campaign for energy efficiency learn to balance their creativity with practicality (Barron & Darling-Hammond, 2008). This helps to foster resilience (as students navigate any road bumps), adaptability (as students respond to new information), and innovation (as they experiment with solutions together).

COLLABORATION BEYOND THE CLASSROOM:

LINKING WITH THE WORLD

ESD becomes impactful when the learning extends beyond the classroom and into the community. When students have the opportunity to connect their skills and knowledge to what is happening in the real-world, either local or global, they are able to see themselves in an active light – shaping their future rather than being passive recipients of new information (Olds, 2012). This connection gives them the opportunity to deepen learning and amplify their impacts by transforming individual awareness into collective action.

Partnerships with other departments are not the only way forward. Looking to the local community can help provide students with rich, authentic opportunities to engage in their learning. For example, students in a media studies class may work to create a documentary about a local indigenous group with the help of a local NGO. These experiences help to bridge the gap between theory and practice, giving students the opportunity to see firsthand how the small changes they make in their daily lives can have a ripple effect for a larger, meaningful change. It also has the added benefit of positioning students as valuable members of the community whose insights are valued and explored.

But why limit partnerships to only the local context? Global collaborations help to expand student perspectives and show a path towards a sense of shared responsibility. International school partnerships, digital exchanges, or global youth campaigns can help learners to explore issues from multiple cultural and geographic lenses. Engaging in a cross-border initiative can help students to foster global competence and understand that sustainability is both universal and contextual (Mansilla & Jackson, 2013). While the challenges of sustainability may be different in every region, the pursuit of solutions is a unifying force.

Social reconstructivist ideology and critical pedagogy invite learners to think about the subject matter, society, the learning process, and doctrines critically in the context of their own lives while empowering students to become an agent of change in their milieu (Leonard & McLaren, 1992). This type of learning can be a powerful motivator and valuable teaching tool to facilitate real, actionable learning as well as a great foundational philosophy for a pedagogy of inclusivity and diversity. This fits the idea that if a student project actively contributes to a policy discussion, or a global solution, or an awareness of a problem, it will help to fuel motivation. This defined purpose helps to build agency as well as reinforce the idea that education is not confined to the classroom, but is a tool for shaping the world throughout their lives.

SPOTLIGHT:

DOCATHON AS A COLLABORATIVE PLATFORM

The Docathon is an innovative model for experiential learning that brings sustainability education to life through storytelling and collaboration. Designed as a creative challenge, it invites students and teachers to co-create documentaries or digital projects exploring real world issues. The Docathon provides a structured and supportive environment that allows learners to develop ideas, research local contexts, and share stories that connect their learning to global goals.

At the International School Nido de Aguilas in Santiago, Chile, the entire Grade 10 cohort took part in a six-week Docathon integrated into the school's Changemakers Curriculum (MAD Courses, 2025). Students were guided by teachers and supported by the MAD Courses team while working in teams to investigate local sustainability and social impact topics. They interviewed community changemakers, visited organizations, and transformed complex issues into authentic documentaries.

This approach strengthened both academic understanding and future-ready skills such as communication, teamwork, and problem-solving (Costin, 2017). Teachers acted as facilitators, helping students navigate creative challenges and ethical storytelling decisions. As Jay Goodman, a Changemaker Teacher at Nido, shared, "Docathon aligned well with our curriculum and gave students a public platform to share and celebrate their work" (MAD Courses, 2025).

The end point of the exercise had the students in a live showcase where they presented their films to peers, parents, and local filmmakers. Feedback from professional judges added authenticity, and selected works were featured in the Student Film Exchange (SFX), a global platform connecting young storytellers worldwide. This public celebration of student voices emphasized that learning is most powerful when it engages with real audiences and real change.

The impact extended beyond the school walls. The winning documentary, Summit, which profiled Chilean mountaineer and activist Rodrigo Jordán, was broadcast nationally on Factor de Cambio, a Chilean television program that focuses on social innovation, sustainability, and community-driven change (Factor de Cambio, n.d.). This recognition demonstrated the reach of student storytelling and its ability to inspire community dialogue.

PREPARING STUDENTS FOR A SUSTAINABLE TOMORROW

Collaboration is not just a skill taught in the silo of a classroom; it is a cornerstone of future-skill development and employability. As industries transition toward more sustainable approaches, the demand for workers who can think critically and work across disciplines is growing massively. Whether it is designing renewable energy solutions, advancing agricultural techniques, or shaping sustainable policy, the jobs of tomorrow require not only technical expertise, but also creativity, communication, and teamwork.

Through engagement with collaborative learning experiences such as Docathon, students are developing these competencies much earlier than previous generations. They learn to connect ideas across subjects such as social studies, science, and to listen actively while building solutions together rather than competing against one another. The experiences they have in the classroom mirror the reality of the challenges they will face in the workplace; complex, interconnected, and global in nature. When students work together to tell the stories of their communities or to create solutions centered on sustainability, they are not only learning about the world around them, they are practicing the collaboration that underpins all sustainable innovation.

Projects that connect students with peers and professionals worldwide foster entire global networks of young changemakers, like that of the Youth Environmental Education Conference (YEEC) or United Nations Sustainable Development Solution Network Youth (UN SDSN Youth). These entities help to develop a sense of shared purpose that goes beyond borders, helping students to realize that their voices are contributing to a collective movement towards a just and resilient future.

Collaboration is no longer an optional teaching strategy; it is an essential foundation for a sustainable future. The challenges our world faces are too complex, interconnected, and urgent for any single person or discipline to solve alone. By cultivating collaboration in our classrooms, we are equipping students with the mindset and skills to become the changemakers who will drive the innovations and partnerships needed to meet these global challenges head-on.

Educators play a vital role in this transformation. Every classroom can become a starting point for collective change where students learn not only to analyze problems but to work together toward real solutions. Collaboration helps students move from awareness to action, empowering them to see that their ideas and voices matter.

The call to action for educators is clear: Integrate collaborative methods, connect learning to real-world issues, and explore tools that inspire teamwork, creativity, and purpose. Through this, we can help our students experience what sustainable action truly looks like, people working together to create lasting change. When collaboration becomes normal and not the exception, classrooms evolve into launchpads for a more connected, compassionate, and sustainable tomorrow.

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PANCHKOSHA, PURPOSE, AND PLANET:

A NEW FRAMEWORK FOR EDUCATION FOR SUSTAINABLE DEVELOPMENT

Ashok K. Pandey

Every morning, children enter schools carrying two invisible futures: one shaped by algorithms and one shaped by the fragile planet they will inherit. Algorithms are learning faster than humans, while the planet cannot heal at the same speed as it is harmed by the human impact. The question before educators is simple but profound: can we prepare the children for both? Climate change, biodiversity loss, widening inequality, and the impact of disruptive technologies constantly remind us that sustainability cannot be treated as a discrete subject like any other. Sustainability must become the very ethos (the guiding spirit and underlying principle) of how education is imparted in schools and universities worldwide.

The United Nation's Sustainable Development Goals (SDGs) and UNESCO's Education for Sustainable Development (ESD) for the 2030 Roadmap have shaped our collective consciousness in the last decade. Yet, to inspire transformation and behavioral change, these aspirations must be grounded in deeper human values. Values that make knowledge and skills meaningful and inspire individuals to dedicate themselves for the larger purpose of education: enduring peace, shared prosperity, and global partnership. This article invites us to draw from a timeless philosophical framework from India, Panchkosha, the five sheaths of human existence described in the Taittiriya Upanishad, an ancient Indian text (c. 6th century BCE). The Panchkosha framework offers a universal way of understanding human development that resonates with the UN's goal of sustainability.

PANCHKOSHA:
AN ANCIENT LENS FOR A MODERN CHALLENGE

The Panchkosha describes human life represented by five concentric layers: the physical body (Annamaya kosha), the vital energy (Pranamaya kosha), the mind and emotions (Manomaya kosha), the intellect (Vijnanamaya kosha), and the bliss of harmony (Anandamaya kosha). Just as Maslow's 1943 framework became a universal reference point in psychology, the Panchkosha model from the Taittirīya Upanishad offers a universal lens for holistic education and sustainability. Both remind us that human development is layered and directed toward a higher purpose.

The Panchkosha way gives us surprising resonances when viewed through the lens of sustainability. The physical layer is about dependence on food, water, and shelter. It echoes SDGs on hunger, health, and clean water. The energy layer relates to well-being and vitality and calls for lifestyles that are healthy and sustainable. This structure again reminds us of several SDG goals. The mental layer, empathy, relationships, and peace dimensions are vital for global citizenship, peace, justice, and collaboration. The need for inquiry, innovation, and discernment in solving environmental and social challenges sits in the intellectual layer of the Panchakosha model. The highest actualization—the bliss—reminds us that sustainability is not about surviving; it is about thriving. An appreciation of these resonances helps us discover that the true purpose of education for sustainable development lies in human flourishing.

LIVING PANCHKOSHA
IN THE CLASSROOM

The strategy to live Panchkosha into everyday teaching lies in integration rather than addition. Science lessons can naturally connect students with championing the cause of the environment by exploring energy cycles, biodiversity, or climate resilience—appreciating the rhythm of the earth. Literature and language classes are the best spaces for reflective storytelling on compassion and interdependence. The mathematics classes can host projects reducing carbon footprints as children strive to max their math scores, or student-led gardens foster respect for soil and food. Unless students touch the soil, they will not understand the importance of food, hunger, and poverty. Introducing mindfulness sessions will cultivate balance and resilience. Encouraging peer-to-peer learning further enhances the development of empathy and responsibility.

School-based cultural celebrations grounded in local customs and ecological mindfulness connect learners to their roots. Love for planting trees, and protecting them, having family meals under the tree, and offering tree leaves during cultural rituals are born out of these traditions. Virtual collaborations between schools across continents cultivate respect for diversity, multiculturalism, and the chance to learn about each other's languages, customs, history, and polity. Project-based learning is being successfully deployed in schools to spark intellectual rigour. Teachers, as the linchpins in this cycle of sustainability education, are the architects of designing this new pedagogy. Professional development must enable teachers to embed sustainability into daily learning. To use AI and digital tools for modeling real-world challenges and to mentor students in reflective practice should be the objective of embracing technology. Ultimately, teachers must help learners experience sustainability not as an external demand but as an internal value mapping.

In my research with teachers across India and beyond, we developed a Values Ascension and Alignment Model (VAAM). The clustering of values that teachers identified in workshops and surveys echoed the Panchkosha framework. The values mapped fell into three domains: personal (self-oriented qualities such as kindness and honesty), interpersonal (relational qualities such as collaboration and fairness), and planetary (societal values such as peace, equality, and care for the environment). This exercise reinforced the idea that education for sustainability is inseparable from education for values. Panchkosha provides the philosophical roots, while the VAAM framework provides contemporary evidence of how educators align values from self to others to planet, almost intuitively. Together, they point to a universal truth: the journey to sustainability begins with deep personal values. India's National Education Policy 2020 envisions experiential, values-based, and holistic education that prepares students for global citizenship and sustainability.

STORIES OF SUSTAINABILITY IN ACTION

At Ahlcon International School in Delhi, where I served as principal, we launched a project called 100 Acts of Kindness. Small acts such as helping a peer overcome difficulties, sharing learning materials with the non-possessed, and visiting homes for the elderly rippled outward, created a culture of care. By doing so, students discovered that sustainability was not only about conserving water or planting trees but also about nurturing compassion and responsibility.

On another occasion, we took students to villages to learn about farming and food systems. Standing barefoot in the fields, children grasped the rhythm of nature and the dignity of human labour. They returned to their urban classrooms with a new respect for food, understanding the harms of food waste and the importance of the environment.

Later, we integrated SDGs into our lesson plans. Sustainability then moved from an abstract idea to a lived theme threaded into stories, exercises, and projects. The message was clear: you don't learn sustainability only in science class; you live it across disciplines.

At the Adani-GEMS Education and Research Institute, I have the privilege of advising on initiatives like the One School One SDG projects. We encourage schools to commit to a single sustainable development goal within their context and strive to integrate it through various projects, festivals, and innovations. They are encouraged to document the project with evidence and impact. One such project involved students and teachers setting up a nursery and selling saplings to the parents on teacher-parent days. Money thus collected was utilized for charity. These examples reaffirm that sustainability in education must be more than a slogan. It is not an add-on but a culture of being. Teachers voiced that formal assignments soon become a collective identity, a reminder that sustainability thrives when it is personalized, owned, and lived by communities.

PANCHKOSHA AND THE GLOBAL DIALOGUE

Though rooted in India's spiritual heritage, Panchkosha resonates with many traditions across the world. "I am because we are," a famous African philosophy – Ubuntu – highlights relational existence. America's indigenous system teaches reverence for land and ancestors. Buddhist thought emphasizes interdependence as the essence of life. Panchkosha's role must not be seen as a cultural artifact but as India's gift to the collective global chorus on sustainability. Panchkosha formulates that all human beings deserve nourished bodies, sustained vitality, cultivated empathy, sharpened intellect, and joy in harmony with the universe.

ESD AND AI: THE NEW FRONTIER

It is true that AI – an unseen, and powerful force – is radically impacting education and society. But technology alone cannot guarantee the realization of a sustainable world. By ethical and responsible use of technology, we can simulate climate models, track energy consumption, or personalize learning about ecosystems. The Panchkosha model provides a moral compass. AI must serve the higher koshas, with innovation being guided by empathy, wisdom, and joy. It is important to know that as many as 128 targets of SDGs out of 169 have found use cases in AI. That should encourage students to embrace AI, remain its masters, and unleash social good. Efforts to realize sustainability do not suffer from resources or technological infrastructure alone but from a lack of an ethical and spiritual mindset. Humans are making machines smarter but failing to make human beings wiser.

The Panchkosha in practice does not require large budgets or complex reforms. Inviting children to touch soil through gardening projects, and farm visits, can bring in wonders. Encouraging peer empathy circles in the classrooms strengthens relationships. Guiding schools to adopt one Sustainable Development Goal as a collective identity will unleash the development of the higher sheathes of Panchakosha. These small but replicable acts embodying the spirit of ESD make sustainability a lived culture in schools.

FUTURES WITH PANCHKOSHA

Educators can help students respect people and the planet by embracing the Panchkosha framework of human development. Students develop the art of living with vitality (Pranmaya Kosh) and cultivating empathy and peace (Vigyanmaya Kosh). Panchkosha sharpens sheaths responsible for purpose and joy (Anandmaya Kosh). By bridging the ancient and the modern, the local and the global, the Panchakosha offers a holistic framework to grow tomorrow's citizens. Nelson Mandela once reminded us that education is the most powerful weapon for changing the world. Perhaps, in today's context, that weapon must be an education rooted in holistic human development, combining the power of the AI and the superpower of the Inner Self.

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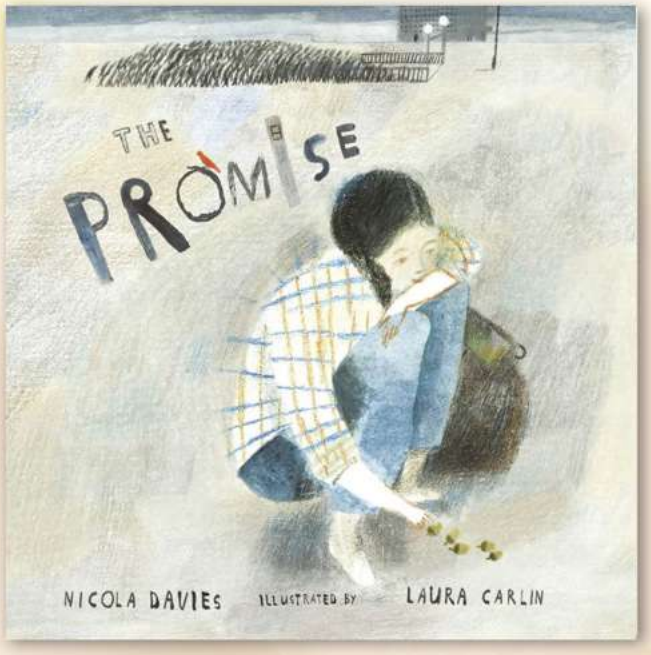
KEEPING THE PROMISE:

A STORY-BASED APPROACH TO ENVIRONMENTAL EDUCATION

Annie Altamirano

Picture books have long been recognized as valuable tools in language education, offering rich opportunities for developing linguistic skills while engaging young learners' imaginations. Beyond their traditional role in language acquisition, these visual narratives can serve as powerful springboards for cross-curricular activities, critical thinking development, and values education. **In this article, I share practical classroom ideas inspired by *The Promise*, a children's book by Nicola Davies.** This beautifully illustrated story can be transformed into a comprehensive educational experience that weaves together language learning, environmental consciousness, and creative expression.



Understanding the story

The Promise tells the compelling story of a young thief who attempts to steal an elderly woman's bag, only to discover it contains acorns. The old woman agrees to let go of the bag on one condition: the thief must promise to "plant them all." This simple premise unfolds into a transformative journey that changes not only the protagonist's life but also the lives of everyone in her grey, lifeless city. The narrative's cyclical structure, where the story ends with the transformed protagonist passing on the same promise to another young thief, creates a powerful metaphor for environmental stewardship and personal transformation.

Nicola Davies, an English zoologist turned children's author, brings unique credibility to this environmental tale. Her background as a presenter on the BBC's *The Really Wild Show* and her subsequent career as a children's author have positioned her as a voice that can speak authentically about nature while engaging young audiences. Her work demonstrates her ability to address serious themes through accessible, emotionally resonant storytelling.

Creating engagement before reading

The success of any picture book session depends significantly on how effectively educators create anticipation and curiosity before opening the first page. With *The Promise*, several pre-reading strategies can help establish emotional and intellectual investment in the story.

Beginning with tactile exploration proves particularly effective. Bringing actual acorns to class allows learners to engage their senses immediately. As students touch and examine these seeds, educators can guide discovery through carefully crafted questions: *What are these objects? What do you think might grow from this small seed? What do you think might grow from this small seed?* Visual aids can also be powerful. Show students photos of oak trees, or even images of cork oaks, and discuss the significance of acorns in different cultures and languages. This introduction naturally builds vocabulary, leads to discussions about oak trees and encourages students to make connections between their world and the story to come.

The book cover itself becomes a teaching tool and offers rich material for discussion when approached thoughtfully. Rather than rushing past it, educators should encourage careful observation of the illustration's details. Give students time to examine the illustration closely. What do they notice about the people and the setting? What emotions does the artwork evoke? Would they like to live in such a place? Focusing on the main character, ask students to interpret her expression and body language. How does her posture make them feel? What might she be thinking or feeling at this moment? This visual literacy exercise helps learners understand that illustrations carry meaning beyond decoration, preparing them to engage more deeply with the visual narrative throughout the book.

A particularly effective pre-reading activity involves creating a "Role on the Wall" – drawing a body outline on large paper where students can attach words, phrases, or sticky notes describing their initial impressions of the protagonist. This collaborative character analysis can be revisited and revised as the story progresses, creating a visual record of how understanding deepens through reading. When examining the first page's image of the girl dwarfed by towering buildings, students might initially describe her as small, alone, or lost. These observations can spark discussions about urban environments, isolation, and the relationship between individuals and their surroundings.

Navigating the *reading experience*

The actual reading of *The Promise* presents educators with important choices about pacing and approach. Three distinct strategies offer different benefits. A flowing, pre-rehearsed reading maintains narrative momentum and allows the story's emotional impact to build naturally. This approach works particularly well with younger learners or when introducing the book for the first time. Alternatively, a deliberate, interactive reading that pauses for speculation and discussion can deepen comprehension and critical thinking skills. This method suits older students or subsequent readings when the basic narrative is already familiar. A third option involves using available video resources, including recordings of Davies herself reading the story, though these work best as supplementary materials after students have experienced the physical book.

Regardless of the chosen approach, preparation remains crucial. Teachers should read the story aloud to themselves multiple times, experimenting with phrasing and identifying natural pause points. Understanding the story's rhythm helps maintain engagement while leaving space for student responses and observations.

(Nicola Davies, The Promise, illustrated by Laura Carlin, Walker Books, 2013. Image captured from the original book.)

Exploring *visual literacy* through illustrations

In children's literature, illustrations are not mere embellishments; they are integral to the storytelling. The illustrations in *The Promise* do far more than accompany the text; they carry essential narrative and thematic weight that demands attention. Teaching students to "read" these images develops visual literacy skills increasingly important in our image-saturated world.

Encourage students to observe how the artwork changes as the narrative progresses. Colour serves as a particularly powerful narrative device throughout the book. The story begins in a world rendered in greys and browns – "Nothing grew. Everything was broken. No one ever smiled." Ask students what they notice. Are there any signs of nature? What would it feel like to live in such a place? They can explore how this palette affects their emotional response to the setting.

As the narrative progresses and the protagonist begins to understand her promise, subtle changes appear. Lighter tones creep in, birds introduce splashes of colour, and eventually, the illustrations explode with greens, blues, and warm earth tones. Tracking these changes helps students understand how visual elements can convey transformation and hope.

The composition of crowd scenes offers opportunities to discuss individual versus collective experience. When examining the illustration of city dwellers, students might select specific figures and imagine their thoughts and feelings. How are the people arranged? What do their faces and colours suggest? Select a few figures and imagine what they might be thinking or feeling. This builds empathy and enriches descriptive vocabulary while reinforcing the story's themes about how individual actions affect communities.

(Amazon)

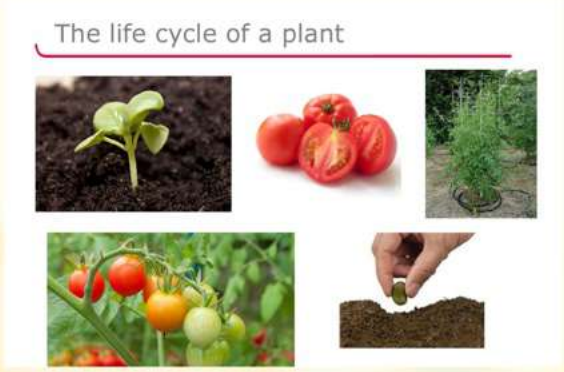
Spatial relationships within illustrations also merit attention. Early images trap characters between vertical lines of buildings, creating feelings of confinement. Later illustrations introduce curves, open spaces, and organic shapes that suggest freedom and growth. Discussing these compositional choices helps students understand how artists use visual grammar to enhance meaning.

> "After completing the initial reading, numerous activities can extend and deepen student engagement with the story's themes and language."

Deepening understanding through post-reading activities

After completing the initial reading, numerous activities can extend and deepen student engagement with the story's themes and language. The Promise ends as it began, with another young thief trying to steal a bag of acorns. This cyclical structure is a powerful narrative device. Does the story really end or is it just beginning anew? Encourage students to discuss their interpretations. Some might argue that the cycle will continue forever, while others may imagine alternative outcomes.

Introducing the concept of cyclical narratives connects literary understanding with scientific concepts like life cycles and ecological systems. Students can create visual representations of the story's circular structure, drawing parallels with natural cycles they've studied in science classes, e.g. the life cycle of plants and animals.



Creative writing exercises allow students to inhabit the story world more fully. They might write diary entries from the protagonist's perspective, create a sequel exploring what happens to the next person who receives the promise, or compose poems inspired by the transformation they have witnessed. These activities reinforce language skills while encouraging personal connection to environmental themes.

The "Conscience Alley" technique offers a dramatic way to explore moral dilemmas within the story. Students form two lines representing different perspectives on whether the protagonist should keep her promise. As a volunteer walks between the lines, students whisper their arguments, allowing the walker to experience the internal conflict the character might feel. This kinesthetic activity makes abstract ethical considerations tangible and memorable.

Connecting to *environmental education*

The Promise naturally opens doors to environmental education across multiple disciplines. The acorn's life cycle provides an obvious starting point for botanical studies. Students can sequence stages of oak tree development, research local tree species, or even begin their own planting projects. These hands-on activities transform abstract environmental concepts into concrete experiences.

Discussions about why trees matter can incorporate scientific concepts like photosynthesis, carbon sequestration, and biodiversity while remaining accessible to young learners. Visual aids showing trees providing oxygen, preventing erosion, or offering habitat help students understand the practical importance of forest conservation. From here, conversations can expand to climate change, examining the difference between weather and climate, investigating local environmental changes, and understanding human impacts on natural systems.

Perhaps most importantly, these discussions should lead to action. Students can create their own environmental promises, developing personal commitments to positive environmental behaviours. These might range from simple actions like reducing paper waste to more ambitious projects like organizing school-wide recycling programs or community tree-planting initiatives. Documenting these promises and tracking their implementation over weeks or months helps students understand that meaningful change requires sustained effort.

Implementing *cross-curricular connections*

The rich thematic content of *The Promise* enables connections across multiple subject areas. In science classes, students can explore seed dispersal mechanisms, investigate urban ecology, or study the role of trees in local ecosystems. Mathematics connections might include calculating the oxygen production of trees, graphing temperature changes in areas with different levels of tree cover, or determining the number of trees needed to offset carbon emissions.

Art projects inspired by the book might include creating collages contrasting urban and natural environments, designing their own illustrated stories about environmental transformation, or painting birds-eye views of their communities with imagined green spaces. These creative exercises reinforce the story's themes while developing artistic skills and environmental imagination.

Social studies connections could explore urban planning, investigating how cities worldwide are incorporating green spaces, or researching successful reforestation projects. Students might study their own community's history, discovering how local landscapes have changed over time and imagining possibilities for future transformation.

The Promise demonstrates how a simple picture book can become a catalyst for comprehensive learning experiences that extend far beyond traditional literacy objectives. By carefully orchestrating pre-reading activities, thoughtfully navigating the reading experience, and implementing diverse post-reading extensions, educators can help students develop language skills, environmental consciousness, and creative expression simultaneously.

The story's cyclical structure mirrors the ongoing nature of environmental stewardship, reminding us that education, like conservation, requires continuous renewal and transmission from one generation to the next. As students engage with the protagonist's transformation from taking to giving, from isolation to connection, they encounter a model for their own potential impact on the world around them.

Through activities that blend language learning with environmental education, creative expression with scientific inquiry, and individual reflection with collective action, *The Promise* offers a template for holistic education that addresses the complex challenges facing today's students. The story's ultimate message – that small actions can catalyse profound change – applies equally to environmental conservation and educational practice. Just as a single acorn can grow into a mighty oak that produces thousands more acorns, a single picture book, thoughtfully taught, can plant seeds of understanding that flourish across disciplines and throughout students' lives.

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TEACHING FOR A SUSTAINABLE FUTURE

TEACHER LEADERSHIP:

BUILDING SUSTAINABLE LEARNING CULTURES FOR TOMORROW

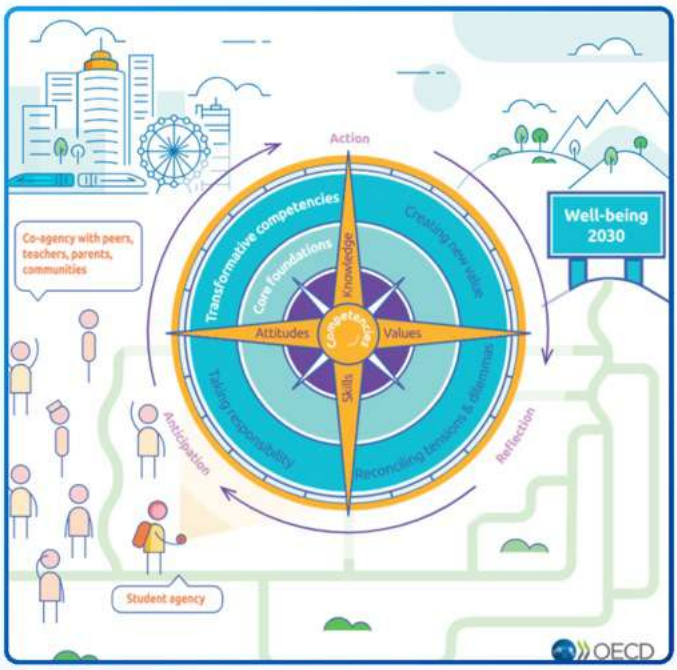
Dr. Hayo Reinders

Sustainability in education is often framed in terms of what we teach. Yet the real question is how education itself becomes sustainable. Sustainable schools are not created by new curricula alone but by cultures that continuously learn and renew themselves. Such cultures depend on teacher leadership.

When teachers are trusted and equipped to take initiative, to reflect critically on their practice, and to guide their colleagues in doing the same, schools become what Jay Hays and I have called learning ecosystems—adaptive, resilient, and capable of self-sustaining growth. In these environments, leadership is shared, learning is collective, and improvement becomes habitual.

Teacher leadership, then, is not simply a professional pathway. It is the essential condition for educational systems that can evolve, regenerate, and serve their communities over time.

WHY TEACHER LEADERSHIP
MATTERS FOR SUSTAINABLE FUTURES



The OECD Learning Compass 2030 (Image source: OCED)

The Sustainable Development Goals call for education systems that prepare learners not only to understand the world but to sustain and improve it. Goal 4.7 of the SDGs and UNESCO's Education for Sustainable Development (ESD for 2030) agenda emphasise values such as adaptability, agency, and responsibility. The OECD Learning Compass 2030 similarly defines these as key competencies for navigating an uncertain future. Yet achieving these outcomes depends on the people who teach.

Sustainability in learning environments cannot be delivered through policy or curriculum alone. It must be modelled and lived within the professional culture of schools. Teachers who lead their peers in inquiry, experimentation, and reflection build the very capacities that students are expected to develop. They show that learning is not an event but a continuous and collaborative process.

> **"Sustainability in learning environments cannot be delivered through policy or curriculum alone. It must be modelled and lived within the professional culture of schools."**

As I've observed elsewhere (Reinders, 2023), the true measure of leadership lies not in short-term performance but in the ability to leave behind new leaders who can go further. In this sense, teacher leadership is a regenerative force. It builds resilience within educational systems by distributing expertise, encouraging critical dialogue, and sustaining shared purpose through change.

Teacher leadership therefore represents the human infrastructure of sustainable education. When teachers are supported to lead, they cultivate in themselves and others the same curiosity, courage, and ethical awareness that underpin sustainability in the wider world.

FROM ENVIRONMENTAL SUSTAINABILITY TO EDUCATIONAL SUSTAINABILITY

In our work on **Sustainable Learning and Education** (Hays & Reinders, 2020), we argued that sustainability is not a choice but an imperative. The same principles that govern ecological systems can guide the renewal of educational ones. A sustainable school is, in essence, an ecosystem that generates rather than depletes its own capacity for growth. It does this by cultivating diversity, flexibility, and shared responsibility for the well-being of all its members.

Ecological thinking reminds us that everything in a system is connected. A teacher's professional development affects a learner's engagement, which in turn influences community trust and institutional resilience. When one part of the system weakens, the whole is affected. Conversely, when teachers collaborate, share knowledge, and support one another's learning, they replenish the collective energy on which sustainable education depends.

This shift from environmental to educational sustainability moves the focus from preservation to regeneration. The goal is not merely to maintain what exists, but to design learning environments capable of adapting and thriving in change. Such organisations mirror the characteristics of healthy ecosystems: they are diverse in expertise and perspective, flexible in structure, and guided by ethical responsibility toward both present and future members.

Educational sustainability therefore rests on the same foundation as environmental sustainability: the capacity to renew, to learn, and to care. When teachers see themselves as stewards of a learning ecosystem rather than participants in a fixed system, they begin to act with the same attentiveness and foresight that sustainability education seeks to foster in students.

When one part of the system weakens, the whole is affected. Conversely, when teachers collaborate, share knowledge, and support one another's learning, they replenish the collective energy on which sustainable education depends.

THE CRITICAL LEARNERSHIP MINDSET

If educational sustainability depends on learning cultures that renew themselves, then the mindset that sustains those cultures is what Jay Hays and I have called Critical Learnership. This perspective links leadership and learning through shared inquiry, reflection, and responsibility. It views every professional challenge as an opportunity to learn, unlearn, and rebuild in ways that strengthen the wider system.

Critical Learnership combines several essential capacities: agency, autonomy, critical reflection, adaptability, and collaboration. Together, these enable teachers to respond to complex, changing contexts with both wisdom and creativity. It also recognises that sustainable change cannot be imposed from above. It grows through the active participation of those closest to the learning process. Teachers who question assumptions, seek multiple perspectives, and integrate new insights into daily practice build not only their own capacity but that of their colleagues and institutions.

At its heart, Critical Learnership is about balance. It values immediate professional improvement, yet it also invests in long-term capacity-building. It prioritises learning that is regenerative rather than consumptive. In a school culture grounded in Critical Learnership, teachers see learning as continuous and collective, not as a series of individual training events. They create spaces for critical dialogue, invite constructive challenge, and use reflection to convert experience into shared knowledge.

This mindset transforms teacher leadership from a position into a practice. A teacher who models curiosity, openness, and resilience shows others how to lead in the same way. Over time, such habits create the conditions for schools to function as self-sustaining learning organisations.

In this sense, Critical Learnership offers both a philosophy and a method for sustainable futures. It equips teachers to lead their own learning, to nurture the growth of others, and to maintain the vitality of the ecosystems they inhabit.

PRACTICAL PATHWAYS

FOR LEADING LEARNING CULTURES

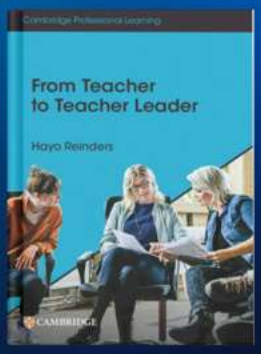
Sustainable education depends on teachers who lead learning, not only their own but that of their colleagues and institutions. In the **From Teacher to Teacher Leader course**, participants explore how leadership can grow from everyday actions rather than formal authority. Small, deliberate changes in practice can have profound ripple effects on the culture of a school or learning organisation.

FROM TEACHER TO TEACHER LEADER

LEADING FROM WITHIN

For more information about the online course, click **HERE** or scan the QR.

*This is a flexible, self-paced course based on the book **From Teacher to Teacher Leader** (Cambridge University Press). The course combines videos, audio prompts, interactive tasks, and reflection-based tools to help you grow your leadership. You'll respond to others' comments and ideas and receive responses in turn. Periodic community events allow us to discuss and share experiences. Achieve your aspirations for the next step in your career, from the comfort of your home, at your own pace, and with the support of a friendly community.*



One simple but powerful approach is to begin with values. Teachers who facilitate conversations about what their community stands for often reveal shared aspirations that have never been made explicit. Such dialogue can transform a staffroom from a collection of individual practitioners into a coherent learning community. When values become visible, they begin to shape priorities, decision-making, and collaboration.

Another pathway is to promote distributed leadership. Encouraging colleagues to initiate small projects, mentor others, or take ownership of specific improvements builds both confidence and capability. These activities demonstrate that leadership is not scarce or hierarchical but renewable and shared.

Reflection and peer inquiry are also central. Teachers who routinely analyse their practice together, using evidence and constructive dialogue, help normalise learning from both success and failure. Over time, this creates an organisational memory and resilience that no single leader could maintain alone.

Finally, sustainability requires intentional succession. Teachers who prepare others to continue their work ensure that leadership endures. They leave behind systems that learn, adapt, and regenerate without dependence on any one person.

These pathways illustrate that teacher leadership is not an additional responsibility. It is a way of being that sustains both professional growth and institutional vitality. Through shared inquiry, distributed responsibility, and reflective practice, teachers build learning cultures that are capable of sustaining themselves and preparing others to do the same.

RETHINKING
IMPACT AND LEGACY

The ultimate purpose of leadership is not control but continuity. A sustainable education system is one that thrives even when individual leaders move on. Teachers who nurture others to lead extend their influence far beyond their own classrooms. They create conditions where professional growth, innovation, and care become self-sustaining.

As Michael Fullan has observed, the true measure of leadership lies not in immediate outcomes but in how many new leaders emerge as a result. When teachers invest in others, they build a renewable form of capital that strengthens the entire educational ecosystem.

The future of education will depend on this kind of distributed, regenerative leadership. Policies and programmes can point the way, but only teachers can make sustainability a lived reality. When teachers lead with reflection, integrity, and purpose, they model for learners what sustainable learning truly means: the capacity to grow, adapt, and contribute to the flourishing of others.

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TEACHING FOR A SUSTAINABLE FUTURE

SUSTAINABLE LANGUAGE LEARNING THROUGH PLAY:

HOW GAMES BUILD SKILLS FOR TOMORROW

Anika Brain

I often meet children in surprising places – not in classrooms, but in virtual Minecraft towns, Roblox bridges, or at kitchen tables scattered with LEGO bricks. These are kids who often struggle in traditional lessons: restless, overwhelmed, or newly arrived in another country. In games, they can breathe. The rules are clear, feedback is instant, and mistakes are safe. That's where language starts living: when it becomes a tool for action, not just a subject to memorize.

As a multilingual educator who has lived in seven countries and raised two bilingual children (one with ADHD), I know how hard it is to balance screen time with meaningful learning. Parents worry – and rightly so – that their kids spend hours scrolling, watching or playing mindless games (children aged 5–8 spend about 2 hours 27 minutes online per day; 8–12-year-olds average over 5 hours). Yet I also believe these same digital worlds can be transformed into powerful learning spaces that build empathy, collaboration and a sense of responsibility.

Over the past few years, my teams have worked with hundreds of neurodiverse learners, bilingual families and newcomer children. In this article I share why play matters for sustainability, offer stories from our projects and suggest ways any teacher can turn learning into a game — with no programming skills or large budgets required.

> In games, learners anticipate outcomes, act within constraints, and reflect on what worked - a full "anticipation-action-reflection" loop.

WHY PLAY MATTERS

FOR SUSTAINABLE FUTURES

Education today must prepare children not just to know, but to act - to think critically, collaborate across differences, and adapt to change. The OECD Learning Compass 2030 describes this through "transformative competencies": creating new value, reconciling tensions, and taking responsibility for collective well-being. Play, when guided with purpose, naturally nurtures these skills (OECD, 2019).

In games, learners anticipate outcomes, act within constraints, and reflect on what worked - a full "anticipation–action–reflection" loop. Research confirms that game-based learning enhances motivation, cognitive outcomes, and social-emotional development. A 2024 Frontiers in Psychology meta-analysis reported moderate-to-large positive effects in early education (Frontiers, 2024).

Games also support inclusion. For neurodiverse children, digital play provides structure without stress. Meta-analyses show small-to-moderate cognitive gains for learners with ADHD, autism, or dyslexia when games are integrated thoughtfully (Ren, 2023).

Finally, narrative games can shape attitudes. Studies reveal measurable changes in empathy and pro-social behavior among players exposed to value-driven storylines (Kolek, 2023).

This evidence resonates with UNESCO's Education for Sustainable Development (ESD for 2030) framework, which calls for learning that fosters empathy, agency, and real-world engagement (UNESCO, 2021).

Play offers precisely that: a space where children can imagine, test, rebuild, and learn to care.

CASE STUDIES
FROM MY PRACTICE

PlaySend.co:
Learning language through Roblox and Minecraft

At **PlaySend**, we teach English, Spanish, and Valencian inside Roblox and Minecraft. Instead of pulling kids away from games, we teach through them. Learners collaborate in building missions, navigate resource-management quests, or role-play real-life scenarios – a restaurant, a marketplace, or a city meeting.

Because the environment is already engaging, motivation is intrinsic. Teachers guide conversation, prompt vocabulary, and encourage reflection rather than correction. For children with ADHD or autism, this approach is transformative: avatars lower anxiety barriers, and communication flows naturally.

The interview with Ms Anika Brain in EduVerse Newsletter 20

PlaySEND

One parent shared, "My son started speaking in full sentences while playing Minecraft – something he never did in class." Over hundreds micro-sessions later, we see a consistent pattern: language fluency grows alongside teamwork, confidence, and joy.

This work also contributes to sustainability. Through in-game missions – like building eco-friendly towns or trading resources responsibly – students practice environmental vocabulary and systems thinking. They learn that sustainability is not a lecture topic, but a lived experience.

BRAINIKA

Brainika.co:
Learning Math through Roblox Adventure

Our **Brainika** platform transforms arithmetic practice into immersive adventures. In Roblox worlds, children solve math challenges to unlock new zones: crossing bridges through correct equations, feeding digital pets with fractions, or exploring planets through multiplication.

For children with short attention spans, this design sustains focus without pressure. Parents report increased independence – kids ask to "play Brainika math" after school – and improved test results. The deeper lesson: persistence, reflection, and problem-solving through play. Those same habits underpin sustainable learning across subjects.

Brickit.app: Reuse, Creativity, and Language in Action

Brickit is an independent app that scans a pile of existing LEGO bricks using AI, recognizes each piece, and suggests new models to build. Beyond its technological brilliance, it carries a strong message of reuse and imagination: building something new from what already exists.

In language classrooms, this simple act opens endless opportunities. **Students can:**

- Describe their creations in the target language – colors, shapes, quantities, and functions.
- Ask and answer questions: "How many blue bricks does your tower have?" "What color is the roof?"
- Engage in "barrier games," where one student describes a model while another builds it unseen, training precise communication and listening.

Teachers can also integrate math and STEM: counting pieces, comparing tower heights, sorting by color, or calculating symmetry. These playful tasks connect language with logic and hands-on experience.

Research by the LEGO Foundation supports this interdisciplinary value: construction play enhances creativity, critical thinking, collaboration, and fine-motor coordination. (LEGO Foundation, 2022) Through Brickit, we see sustainability in both material and mindset: children reuse existing resources, cultivate patience, and realize that innovation often begins with what we already have.

NativeSpeakers.co: Language, Belonging, and Adaptation

Native Speakers Courses

At NativeSpeakers.co, our "anti-school" model provides personalized lessons with native-speaker tutors for children and adults – especially migrant families adapting to new linguistic environments. For many, language is not academic – it's survival.

Lessons are built around real life: enrolling in school, visiting a doctor, or navigating local systems. In some sessions, parents and children learn together through games or story-based dialogues, reinforcing bilingual bonds.

This approach aligns with UN data showing that maintaining the home language while learning a new one supports identity, family cohesion, and well-being. (UNHCR, 2023)

We also use playful digital tools – Minecraft role-plays, card quests, or vocabulary "missions" – to help migrant children gain confidence. Games act as neutral spaces where learners can experiment, fail safely, and recover quickly.

Playful, personalized language education offers more than skills: it rebuilds belonging.

FROM LANGUAGE TO LIFE SKILLS

Across all of my projects, language learning becomes a gateway to life skills that shape resilient, empathetic citizens:

Learning Context	Skill Developed	Sustainability Link
Game missions in Roblox/Minecraft	Communication, negotiation	Collaboration and shared responsibility
Brickit builds & barrier games	Descriptive clarity, problem solving	Reuse mindset, patience
Brainika math adventures	Perseverance, logic	Systems thinking, persistence
NativeSpeakers.co dialogues	Empathy, intercultural fluency	Inclusion and social cohesion

In every setting, the focus shifts from memorization to meaning and immediate practice. Students learn how to learn – reflecting, adapting, and taking ownership of their progress. These are the competencies the world urgently needs.

> Students learn how to learn - reflecting, adapting, and taking ownership of their progress.

PRACTICAL INSIGHTS
FOR EDUCATORS

You don't need advanced technology to bring playful, personalised learning into your classroom. Here are a few principles:

Follow the child's interests

Start by asking what excites your students – dinosaurs, cooking, space travel, dance? Then design tasks around those passions. In our programs, some lessons take place in a virtual dinosaur park; others involve cooking recipes in Spanish. When learners see their interests reflected, engagement soars.

Mix digital and physical play

Combine online platforms (Roblox, Minecraft or simple language-learning apps) with hands-on materials. A learner might build a virtual eco-city and then design a real poster describing its sustainable features. With Brickit or other loose-parts activities, children build objects and describe them. Variety keeps the brain stimulated and supports different learning styles.

Keep tasks short and goal-oriented

Break lessons into micro quests with clear objectives and immediate feedback. Completing a small parkour challenge, writing three sentences about a picture or teaching a new word to a parent can all provide a sense of accomplishment. These "quick wins" help learners climb out of motivation dips.

Embrace open-ended challenges

Research on loose parts play suggests that unstructured exploration with varied materials stimulates creativity and problem solving. Leave room for learners to set their own goals – such as building a structure of their choice or creating a short story about a game character – and encourage them to share their work.

Encourage reflection

After each activity, ask learners: What did you notice? What was challenging? What would you do differently next time? This transforms play into conscious learning and fosters metacognition.

Connect to sustainability

Wherever possible, link activities to real-world issues. Build a virtual garden and discuss water use; reuse old game materials; role-play a community meeting about recycling. Children learn that their choices matter.

Don't go it alone

Involve families and communities. Invite parents to join a short game or conversation; share resources; create multilingual "mission logs." Sustainable education is a shared journey.

These principles apply across contexts, whether you teach online, in person or in a hybrid model. They hinge on curiosity, patience and the willingness to explore new tools – from digital platforms like Roblox and Minecraft to simple household items – and to adapt them to your learners' needs.

GROWING TOMORROW
THROUGH PLAY

When I imagine the future of education, I see classrooms where every child follows a personal learning path across playful, connected worlds. Technologies like AI, AR, and multiplayer platforms will amplify creativity, but empathy and curiosity will remain our strongest tools.

Play is not a break from learning; it is learning. It teaches adaptability, resilience, and care. Whether a child is building in Roblox, reusing LEGO through Brickit, or practicing dialogue after migration, the goal is the same: to make learning human, joyful, and sustainable.

> My mission is simple—to make education inclusive, imaginative, and enduring—one game, one build, one conversation at a time.
>
> - Anika Brain -

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Anika Brain is an award-winning EdTech entrepreneur, polyglot, and innovator with over 17 years of experience in immersive language education. She has founded multiple global learning platforms, integrating AI, metaverses (Roblox, Minecraft), and game-based learning to revolutionize how 270,000+ students acquire new skills. A speaker, author, and thought leader, Anika specializes in inclusive education, neurodivergent learning, and next-gen digital learning experiences.

SPECIAL INTRO RESOURCES

LESSON PLANS FOR GREENER CLASSROOMS

01 July 1, 2023

How can we protect our planet?

In this engaging lesson plan, students will explore crucial environmental issues and their impact on the planet, while gaining insight into and practice discussing the importance of preserving Earth's ecosystems.

02 September 3, 2023

Why is saving water so important?

This lesson helps elementary students understand why water conservation matters while building relevant vocabulary and language skills. Through discussions and group tasks, they identify wasteful habits, suggest solutions, and create a poster encouraging water-saving practices at home and school.

03 February 5, 2024

Should Untouched Places in the World be Left Untouched?

This lesson plan enhances students' understanding and appreciation of the wonders of nature, emphasizing the importance of preserving untouched locations while building vocabulary, exploring pros and cons of human impact, and strengthening critical thinking, speaking, and debating skills.

04 September 10, 2024

Why do we need animals?

This lesson emphasizes the importance of animals in human life. Learners will create impactful posters to inspire others to protect animals and the environment via their daily activities, while exploring endangered species, learning related vocabulary, and practicing persuasive language skills.

AND SO MANY MORE!

For this special sustainability edition, we are highlighting our free ELT resource of well-crafted lesson plans. These plans offer practical, engaging activities designed to help teachers instill awareness, responsibility, and hope for a greener, more sustainable future. Scan the QR code or click **HERE** to explore the full collection of free lesson plans.

PROJECT SHOWCASE

growing tomorrow
TEACHING FOR A SUSTAINABLE FUTURE

Growing tomorrow begins in today's classrooms. Around the world, educators are planting the seeds of sustainability, equity, and innovation — shaping learners who are not only prepared for the future, but capable of creating it. As global challenges become increasingly complex, the role of education expands beyond knowledge transmission toward cultivating resilience, empathy, and responsible citizenship.

This special edition highlights inspiring projects from diverse contexts that show what it means to nurture future-ready learners. Let's explore the projects from page 135.

PROJECT SHOWCASE

CULTIVATING AGENTS OF CHANGE: THE 'GREEN DIGITAL PEDAGOGY' PROJECT IN ENGLISH LANGUAGE TEACHER EDUCATION

Prof. Marina Falasca

THE IMPARATIVE FOR SUSTAINABLE GLOBALLY RESPONSIVE ELT

The landscape of English Language Teaching (ELT) is continually reshaped by two dominant forces: the rapid integration of digital technology and the undeniable urgency of the global sustainability crisis. As a teacher educator committed to preparing future professionals who are not just skilled but also ethically and environmentally conscious, I believe that the most impactful teacher development activities are those that engage trainees in experiential, reflective, and contextually grounded practice. This commitment led to the design and implementation of the **"Green Digital Pedagogy" Project** – an initiative that has transformed how pre-service English as a Foreign Language (EFL) teachers approach both technology and environmental responsibility in their classrooms.

The idea for this project emerged from a critical concern regarding the paradox inherent in digital ELT. While technology offers tremendous potential – reducing paper use, increasing access to resources, and fostering global collaboration – it simultaneously risks reinforcing digital inequity, overconsumption, and e-waste if not used mindfully. The shift from physical materials to cloud-based tools, for example, is not a zero-sum game; it simply relocates the environmental footprint from a local classroom to the global data centers. Therefore, my goal was not merely to teach trainees how to use educational technology creatively, but to cultivate critical digital literacy – the ability to assess the ecological implications of their teaching choices and, crucially, to promote sustainability through language learning. This approach positions the teacher not just as a content deliverer, but also as an agent of change dedicated to fostering a sustainable future.

THEORETICAL FOUNDATIONS: ANCHORING PRACTICE IN CRITICAL PEDAGOGY AND TPACK

The Green Digital Pedagogy Project is deeply rooted in several interconnected theoretical frameworks. Firstly, it draws heavily on **Experiential Learning Theory** (Kolb, 1984), emphasizing that learning is a process where knowledge is created through the transformation of experience. Trainees do not simply read about sustainability; they design and execute sustainable lessons, then reflect critically on the outcomes. Secondly, it embraces **Critical Pedagogy** (Freire, 1970), encouraging trainees to move beyond technical application to interrogate the ideological and ecological consequences of their practice.

The project operationalizes these theories through the lens of the **Technological Pedagogical Content Knowledge** (TPACK) framework (Mishra & Koehler, 2006). By integrating the three core domains—Technology, Pedagogy, and Content—with a focus on sustainability, the project introduces a necessary fourth dimension: Environmental Responsibility or Eco-Consciousness. This fusion ensures that technology is not an add-on but a purposeful tool for delivering environmental content and achieving sustainability goals within the EFL curriculum.

Other approaches resonate strongly with this expanded framework. For example, what has been termed **Green English Language Teaching** (GELT) emphasizes connecting language learning with ecological literacy, ensuring that environmental issues are not peripheral but embedded in linguistic and communicative practice. Similarly, **Project-Based Language Learning with Technology** (PBLLT) encourages students to tackle real-world environmental issues through participatory learning, aligning seamlessly with critical pedagogy's call for meaningful, transformative education.

PROJECT IMPLEMENTATION: INTEGRATING ECOLOGY AND DIGITAL TOOLS

The Green Digital Pedagogy Project was implemented as a core component of a third-year course titled Multimedia Applied to ELT, targeting pre-service EFL teachers at a local university in Argentina. The design was structured into two main phases:

PHASE 1:
CRITICAL DIGITAL FOOTPRINT EXPLORATION

Trainees began by confronting the environmental reality of their digital tools. They explored the carbon footprint of educational technology, analyzing how data centers, cloud storage, device manufacturing, and high-bandwidth streaming contribute to global emissions. Using publicly available tools such as Google's Cloud Carbon Footprint, they learned that going paperless does not automatically equal sustainability. This exercise fostered awareness of the difference between ostensibly 'green' practices and truly sustainable ones, such as optimizing data use, selecting low-energy devices, or extending the lifecycle of hardware.

PHASE 2:
DESIGNING THE GREEN MICRO-LESSON

In the practical phase, trainees worked in pairs to design an EFL micro-lesson based on two criteria:

- **Eco-Friendly Tool Use:** Lessons had to employ digital tools considered more environmentally benign (e.g., using offline-capable apps, repurposing content, or choosing platforms with lower energy demands).
- **Environmental Awareness Content:** Lessons had to address sustainability-related themes such as renewable energy, recycling, or climate advocacy.

One particularly impactful example was **a lesson on solar energy** in which teenage learners created stop-motion videos using recycled materials and the app Stop Motion Studio. Through this activity, students practiced sequencing language and renewable energy vocabulary while simultaneously engaging with scientific concepts and reusing physical resources. Once completed, the videos were shared on Google Classroom, extending the learning experience into a collaborative digital space while also modeling minimal digital waste. Importantly, the evaluation rubric aligned with these goals: it valued not only linguistic accuracy but also digital and environmental literacy, thus positioning sustainability as an essential professional competency alongside language teaching skills.

INSIGHTS FROM COMPLEMENTARY PROJECTS BROADENING THE SCOPE

The integration of sustainability into ELT was not limited to a single project; in the Multimedia Applied to ELT class, student teachers designed a variety of initiatives that explored eco-digital pedagogies in creative ways. Taken together, these projects offer valuable insights that both complement and extend the goals of the Green Digital Pedagogy initiative.

1 DIGITALIZATION AS A GATEWAY TO ECOLOGICAL DISCUSSIONS

One group highlighted how digital platforms (Google Classroom, Microsoft Teams, e-books) reduce the need for paper while simultaneously creating opportunities to raise awareness of issues like deforestation. By framing digitalization not only as efficiency but also as a pedagogical trigger for ecological discussions, teachers can deepen students' sense of global citizenship.

2 BALANCING BENEFITS AND RISKS OF CLOUD-BASED TOOLS

Another group pointed out that although cloud platforms reduce commuting and paper consumption, they also depend on energy-intensive data centers. To address this paradox, they proposed training teachers in energy-efficient practices – such as mindful video streaming, responsible file management, and choosing providers committed to renewable energy. Their contribution underscores that sustainability is shaped not only by the technologies we adopt but also by the ways we choose to use them.

3 PROJECT-BASED SUSTAINABILITY LESSONS FOR TEENS

A third group designed a lesson on plastic pollution, combining digital tools with global exchanges. Their recycling challenge connected students in Argentina with peers abroad via Class2Class.org, showing how collaborative online projects can build ecological empathy and foster intercultural communication. Such approaches parallel the stop-motion solar project but broaden the thematic scope, tackling waste reduction and social responsibility.

4 GAMIFICATION, AI, AND EMERGING TOOLS

These projects also explored forward-looking approaches, including eco-gamification (e.g., EcoChallenge 2.0, WWF Together) and AI-driven environmental monitoring (e.g., SmartCourse, NASA's GLOBE Observer). Integrating such tools into ELT exemplifies the potential of technologically mediated, sustainability-focused pedagogy, linking language practice to real-world environmental advocacy. For example, learners can conduct a "virtual carbon audit" guided by an AI-powered chatbot, illustrating how digital innovations can foster both linguistic competence and critical ecological awareness.

5 STUDENT VOICE AND AGENCY

Across all projects, a recurrent theme was the emphasis on **student agency**. From creating digital campaigns on water conservation to proposing recycling solutions at school, learners were positioned not just as passive recipients of content but also as **prosumers**—producers and consumers of knowledge. This resonates with Freire's vision of education as liberation, where students develop the critical capacity to both question and act upon the world.

CHALLENGES AND RISKS: NAVIGATING THE PARADOX OF GREEN TECH

While the benefits of integrating technology into ELT are evident, these projects also highlight the risks of over-reliance on digital tools. Increased device usage drives up energy consumption, frequent hardware upgrades contribute to e-waste, and unequal access can deepen the digital divide. Addressing these challenges does not require rejecting technology but rather cultivating responsible digital habits, such as:

- Extending device lifecycles instead of replacing hardware prematurely
- Choosing energy-efficient tools and enabling power-saving features
- Educating learners on proper e-waste disposal
- Offering low-bandwidth or offline alternatives to promote equity

Teacher training is pivotal in this process. Without digital literacy, educators may unintentionally use technology in ways that undermine sustainability goals. To support these efforts, schools and institutions must invest in greener infrastructure, adopt eco-conscious policies, and prioritize ongoing professional development.

"Without digital literacy, educators may unintentionally use technology in ways that undermine sustainability goals."

DEMONSTRABLE IMPACT AND RIPPLE EFECTS

The effectiveness of the Green Digital Pedagogy Project, reinforced by insights from complementary initiatives, stems from its authentic integration of **content, pedagogy, and values.** Trainees moved from a purely technical understanding – learning to "use tech in the classroom" – to a critical, responsible, and creative one – learning to use technology as a medium for global advocacy.

Feedback from participants revealed a notable shift in mindset toward sustainability in teaching. Many reported reconsidering their material choices, opting for digital platforms with lower environmental impact and intentionally designing eco-focused lessons during their practicum. Beyond individual classroom practices, completed projects were also shared online, extending their impact and engaging the wider community in sustainability-focused learning. Collectively, these experiences not only reinforced the integration of sustainability into ELT but also illustrated how teacher-led initiatives can connect language learning with meaningful environmental action, bridging classroom practice and real-world advocacy.

TEACHERS AS PURPOSEFUL AGENTS OF CHANGE

The Green Digital Pedagogy Project stands as a powerful testament to the transformative potential of experiential, value-driven teacher development. When framed through critical pedagogy and extended through real-world projects, digital tools become more than instructional aids; they become **catalysts for global citizenship and ecological stewardship.**

By drawing on complementary student projects – whether digitalization lessons that spark debates on deforestation, recycling challenges that connect learners globally, or AI tools that personalize sustainability education – the broader picture emerges: ELT can be a platform for both language development and environmental advocacy.

Ultimately, teachers must be prepared not only as facilitators of language but also as articulate, critically aware **agents of change.** The task is urgent, the tools are available, and the responsibility is ours. As these projects demonstrate, when teachers embrace their role as eco-conscious educators, they empower their students to envision – and enact – a more sustainable and equitable future.

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PROJECT SHOWCASE

GROWING TOMORROW:

SUPPORTING MIGRANT AND REFUGEE STUDENTS THROUGH the e-Motiva Program

Dr. Luis Filipe Mesquita da Fonseca

The Human Dimension OF SUSTAINABILITY

Teaching for a sustainable future is a mission that extends far beyond the curricula of science and ecology. While environmental protection, the use of renewable energy, and the management of finite resources are undeniably crucial topics, sustainability, in its broadest definition, also possesses a deeply human dimension. It involves building inclusive, resilient, and empathetic communities where every individual feels safe, respected, and capable of contributing meaningfully to the world they will inherit. It is this approach that we call **Human Sustainability**: ensuring that the emotional and social foundations of future generations are as robust as the environmental ones.

Schools—intricate social ecosystems—play a pivotal role in fostering this type of human sustainability. They are the privileged spaces where resilience, empathy, and a sense of belonging can be intentionally cultivated.

In Portugal, as in many European nations, classrooms are becoming increasingly diverse, hosting migrant and refugee students from a wide array of origins, including Ukraine, Brazil, Angola, India, and Bangladesh. This cultural and linguistic richness undeniably enhances learning environments, transforming the school into a microcosm of the world. However, the process of adaptation brings with it substantial, often invisible challenges. Many migrant students face educational disruption, the silent burden of trauma from forced displacement, or the constant strain of navigating between multiple cultural and linguistic worlds.

Refugee students, in particular, frequently arrive carrying the weight of traumatic migration, grief, fear, and deep uncertainty about the future. Such experiences demand support that transcends academic catch-up; they require a space for healing and empowerment.

How can schools respond effectively to this complex need? Beyond teaching traditional subjects like mathematics, science, or languages, schools must also act as spaces of safety and development, where learners acquire the emotional tools they need not just to survive, but to truly flourish and thrive.

It is in this context of pressing need and pedagogical opportunity that **the e-Motiva Program** was created. Its core principle is clear: emotional sustainability is inseparable from academic and social success. By integrating insights from neuroscience, emotional intelligence, and inclusive pedagogy, the e-Motiva Program offers a clear path for Portuguese schools to support migrant and refugee students—and indeed all their learners—in building a more sustainable tomorrow.

> ***For migrant and refugee students, emotional sustainability is not a secondary concern; it is absolutely vital.***

The Emotional Foundation
OF SUSTAINABILITY

Sustainability is typically defined in terms of finite resources: energy, water, biodiversity, or natural systems. Yet, human beings also require sustainable emotional foundations to learn, grow, and contribute positively to society. Emotional well-being is, therefore, the critical foundation that allows students to access and utilize their full cognitive potential. Without it, knowledge remains inaccessible, and resilience fails to develop.

For migrant and refugee students, emotional sustainability is not a secondary concern; it is absolutely vital. International research, notably the work of Fazel et al. (2012), has consistently shown that displaced children experience higher rates of anxiety, depression, and post-traumatic stress disorder than their non-displaced peers.

Our own study, conducted in Portuguese school contexts with 48 migrant and refugee participants, confirmed this harsh reality and provided essential data for the design of e-Motiva. We observed that the Ukrainian participants – many fleeing war – reported significantly higher psychological distress than students from other backgrounds. This heavy emotional load has a direct, measurable impact on academic engagement. Students carrying unresolved emotional weight struggle to maintain focus, participate in group discussions, or persevere with difficult tasks, leading to educational exclusion and the erosion of self-esteem.

In contrast, when students develop robust skills in emotional regulation, resilience, and adaptability, their likelihood of academic and social success increases dramatically. Emotional intelligence programs like e-Motiva demonstrate that this intelligence is not a curricular luxury; it is a survival skill essential for navigating today's complex, interconnected, and rapidly changing world. By teaching students to recognize their emotions, set meaningful goals, and proactively regulate stress, schools prepare them not only for formal academic exams but also for the wider, lifelong test of building equitable, compassionate, and truly sustainable societies.

e-Motiva

CONCEPT, PILLARS, AND INCLUSIVE PEDAGOGY

The e-Motiva Program, titled Tracing the Path of Motivation and Well-Being through Neuroscience and Emotional Intelligence, is a structured, six-session intervention designed to seamlessly integrate social-emotional learning into the daily life of the school. The program's design rests on three fundamental pillars, specifically chosen to address the unique needs of a diverse student body:

This pillar recognizes that diversity is the norm and that all learners possess varied strengths and challenges. UDL ensures that students, particularly migrants facing linguistic or cultural barriers, can engage meaningfully by offering multiple ways of accessing and expressing knowledge. Activities within e-Motiva are intentionally designed to be multisensory: they include visual supports (like Plutchik's Wheel), interactive and collaborative group work, and creative projects. This pedagogical range is essential for accommodating different levels of language proficiency and learning needs, ensuring the program itself does not become a source of frustration or academic exclusion. UDL in e-Motiva is the affirmation that removing barriers is the first step toward equity.

Drawing on established frameworks, e-Motiva emphasizes the early identification of emotional distress. A crucial component is training teachers to recognize the subtle signs of anxiety, withdrawal, or disengagement. By acting as frontline observers, teachers are empowered to respond with low-level interventions or to refer students before issues escalate into chronic mental health challenges. The program provides the tools for educators to feel confident discussing emotions in the classroom, transforming the school into a robust safety net. This preventive approach is a direct investment in the student's capacity to learn.

Inspired by the foundational models of Daniel Goleman and the Six Seconds framework, e-Motiva actively cultivates the core competencies of emotional intelligence: self-awareness, self-regulation, empathy, and social skills. These competencies are essential for personal adaptation – the ability to "bounce back" from setbacks – for effective collaboration, and ultimately, for growing into responsible citizens who can manage their own stress while respecting and understanding the perspectives and experiences of others. The program demystifies emotions, presenting them as valid data to be understood, rather than weaknesses to be suppressed.

The program's three overarching objectives are clear and impactful:

- Increase student motivation by establishing inclusive learning environments that value every student's history and context.
- Strengthen emotional intelligence by deliberately developing skills in self-awareness and regulation.
- Promote resilience and a sense of belonging, ensuring that all students, regardless of their migratory journey, feel fundamentally capable of future success.

e-Motiva in Practice

A SIX-SESSION PATH TO RESILIENCE

The structured, six-session design is what makes e-Motiva practical and adaptable for implementation in diverse school settings. Each session combines reflective exercises, practical skill-building, and collaborative learning, systematically building emotional literacy.

SESSION 1: INTRODUCTION TO MOTIVATION AND EMOTIONAL INTELLIGENCE

The program opens by distinguishing between intrinsic (driven by personal interest or enjoyment) and extrinsic motivation (driven by rewards or grades), guiding students to identify what truly drives them. For many learners, this is a transformative moment. One student, Maria Clara from Brazil, realized that while fear of failure motivated her, it was her curiosity and desire to connect with others that sustained her learning. This reframing is essential for academic resilience, as it anchors motivation in personal meaning rather than external pressure.

SESSION 3: SETTING SMART GOALS (SPECIFIC, MEASURABLE, ACHIEVABLE, RELEVANT, TIME-BOUND)

Effective motivation is channeled through achievable objectives. This session introduces the SMART methodology, a tool proven in the corporate world and adapted for education. The most critical component in e-Motiva is Relevant (R), where students are encouraged to link their academic goals directly to their emotional and migratory needs, making them intrinsically meaningful. Faisal, a Bangladeshi student, set a goal to learn ten new Portuguese words per week, but linked this specific action to the emotional purpose of feeling more confident and less isolated when interacting with peers during group activities. This process of setting practical, visible, and emotionally aligned goals boosts self-efficacy and provides tangible, immediate proof of progress.

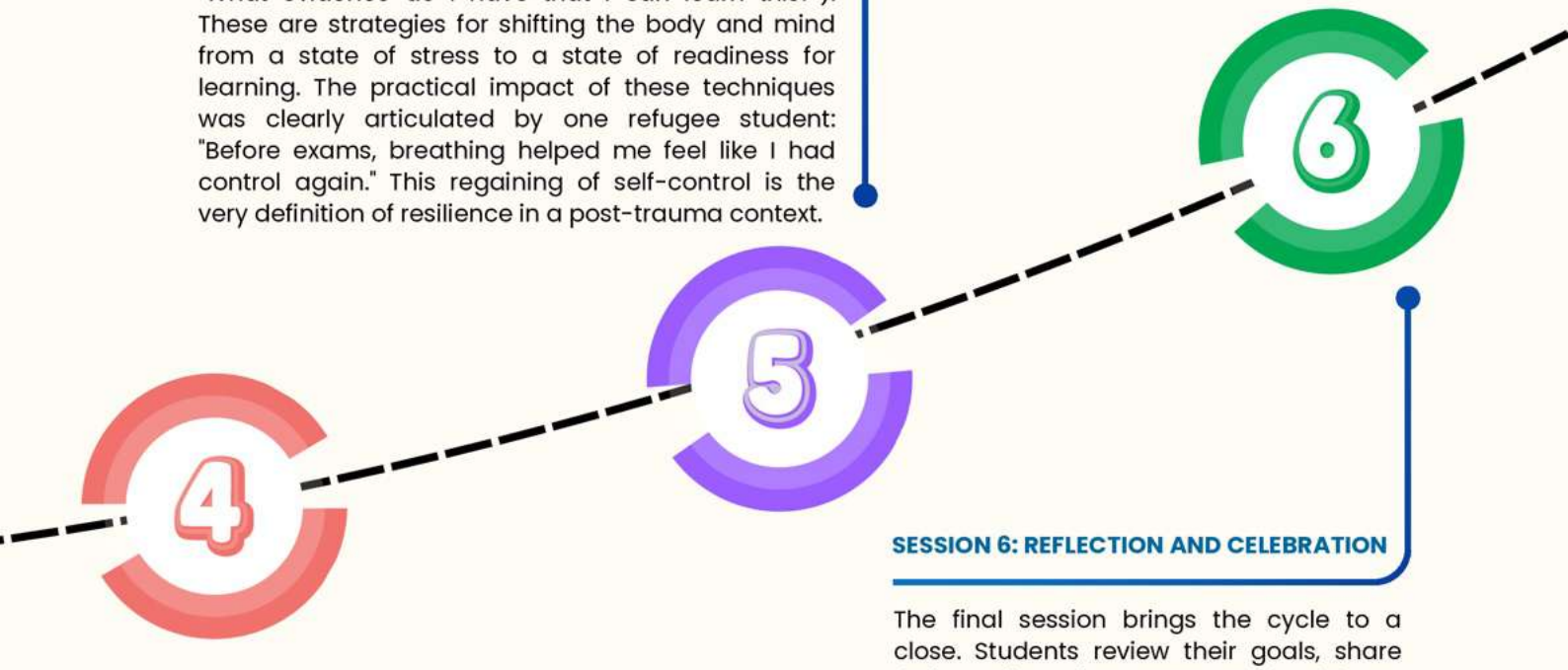
1 2 3

SESSION 2: IDENTIFYING EMOTIONS WITH PLUTCHIK'S WHEEL

Emotional intelligence begins with self-awareness. In this session, learners use **Plutchik's Psychoevolutionary Wheel of Emotions** to map and articulate their feelings in academic and social contexts. The Wheel is a visual tool that helps students move beyond simple categories (like "happy" or "sad") to identify complex and mixed emotional states. Nádia, a young Ukrainian student, used the Wheel to describe her state before a major exam. She realized she felt a mix of "fear" (a basic emotion) and "determination" (a blend of acceptance and anticipation). This ability to recognize that complex emotions can coexist – that she could accept her anxiety while focusing on her goal – provided her with the critical self-awareness needed for the next step: regulation.

SESSION 5:
EMOTIONAL REGULATION STRATEGIES

This session is a skill center focused on providing concrete, neuroscientific tools. Students learn practical techniques, including deep breathing (to activate the parasympathetic nervous system), autogenic training, and, crucially, cognitive restructuring—the process of challenging automatic, negative thoughts. Students learn to replace destructive statements (e.g., "I'm not good enough to learn this") with evidence-based questions (e.g., "What evidence do I have that I can learn this?"). These are strategies for shifting the body and mind from a state of stress to a state of readiness for learning. The practical impact of these techniques was clearly articulated by one refugee student: "Before exams, breathing helped me feel like I had control again." This regaining of self-control is the very definition of resilience in a post-trauma context.



SESSION 4:
LINKING EMOTIONS AND GOALS

Theory is put into practice through role-plays and simulations, where students rehearse how to handle frustration, disappointment, or anxiety while actively working toward a goal. This safe rehearsal is vital; it allows students to experience emotional setbacks in a controlled environment, building the confidence required to face real-world challenges outside the classroom. They learn to change the internal narrative from "I failed" to "This is an opportunity to learn to regulate," demonstrating a growth mindset.

SESSION 6: REFLECTION AND CELEBRATION

The final session brings the cycle to a close. Students review their goals, share their stories of progress, and celebrate both personal and collective achievements. Simple gestures, such as certificates or symbolic group recognition, are used to reinforce the students' innate sense of belonging and their newly forged resilience. By systematically moving from reflection to skill-building to celebration, e-Motiva successfully redefines the educational process as a journey of growth, rather than a focus on deficits or shortcomings.

Each session combines reflective exercises, practical skill-building, and collaborative learning, systematically building emotional literacy.

TANGIBLE OUTCOMES:
From Anxiety to Agency

The e-Motiva Program has demonstrated a measurable and tangible impact on the emotional and academic lives of its participants:

- **Improved emotional regulation:** Students learned to integrate mindfulness and cognitive strategies into their daily routines, significantly reducing their emotional reactivity to stress and unexpected events.
- **Reduction of anxiety:** The most notable and urgent result was the measurable decrease in anxiety reported by the Ukrainian participants, the group initially identified with the highest levels of psychological distress. This reduction enabled fuller, more confident academic participation.
- **Strengthened bicultural identity and agency:** Migrant students were empowered to reframe their cultural hybridity – often a source of stress – as a valuable asset. One Brazilian girl exemplified this by proudly using her bilingual skills to assist peers with vocabulary difficulties, turning her cultural difference into a source of agency and inclusion within the classroom community.
- **Increased motivation and initiative:** The focus on setting visible SMART goals offered students concrete proof of their own progress, dramatically boosting self-confidence. Teachers universally noted profound changes in the classroom atmosphere, including a calmer environment, richer peer collaboration, and a greater overall openness to sharing and initiative among students. The ability to articulate their emotions led to improved communication between students and teachers, resulting in fewer conflicts and more time dedicated to learning.

Growing Tomorrow:
PLANTING SEEDS FOR A SUSTAINABLE FUTURE

The e-Motiva program doesn't just prepare for the future—it actively grows tomorrow. Through intentional acts of emotional support, goal-setting, and the celebration of cultural diversity, it cultivates classrooms where every student can thrive. These efforts plant the seeds for resilient, inclusive, and sustainable communities.

The program also aligns seamlessly with multiple United Nations Sustainable Development Goals (SDGs), reinforcing the idea that social-emotional learning is central to global progress:

SDG 3 – Good Health and Well-Being: By enhancing the mental health and emotional resilience of vulnerable students.

SDG 4 – Quality Education: By ensuring all students have access to inclusive, equitable, and supportive learning environments.

SDG 10 – Reduced Inequalities: By valuing cultural and linguistic diversity, directly reducing social exclusion, and empowering marginalized voices.

These outcomes are most eloquently demonstrated through the students themselves. Consider David, a Ukrainian student who, due to profound emotional insecurity, initially avoided speaking in public. After participating in e-Motiva and building emotional regulation skills, he volunteered to lead a small group discussion—an act of courage rooted in newfound emotional security. Or Maria Clara, who, having embraced her intrinsic motivation, leveraged her unique cultural perspective to explain complex global issues to her peers, embodying the proactive spirit of sustainable citizenship.

These stories reveal a powerful truth: emotional sustainability is the indispensable fuel that drives academic and social sustainability. By nurturing empathy, adaptability, and a sense of belonging within their walls, schools directly contribute to the creation of more inclusive, resilient, and enduring societies for the future.

Every time a school helps a child regulate their anxiety, set a personally meaningful goal, or celebrate their cultural identity, that school performs an act of sustainability. These small, deliberate acts accumulate, shaping communities that are not only greener, but also fairer, more equitable, and more compassionate.

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PROJECT SHOWCASE

growing tomorrow
TEACHING FOR A SUSTAINABLE FUTURE

SPARKING creativity & critical thinking THROUGH THE SDGs

Marcela Cecilia Danowski

In a world facing unprecedented environmental, social, and economic challenges, educators are uniquely positioned to guide students toward a future that is not only sustainable but also creative, resilient, and globally minded. The United Nations established the Sustainable Development Goals (SDGs) in 2015 as part of the global Agenda 2030 to provide an inspiring framework for such learning. With 17 interlinked goals addressing everything from quality education and climate action to gender equality and responsible consumption, the SDGs challenge educators to move beyond traditional lessons and create learning experiences that are meaningful, action-oriented, and globally conscious.

WHY THE SDGS matter in the classroom

Teaching the SDGs in language classrooms is not about adding more content to an already packed curriculum. Instead, it is about giving students a purposeful context for learning. When students explore topics like clean water, sustainable cities, or climate action, language becomes a tool for communication, inquiry, and reflection, rather than an abstract subject. **This approach fosters three essential outcomes: global awareness, critical thinking, and responsible citizenship.**

- Global awareness arises when students confront real-world challenges that are often outside their immediate experience. For instance, a class project exploring sustainable energy can spark discussions about the impact of fossil fuels, renewable energy solutions, and local initiatives in the students' own community. Students begin to connect personal experiences with global realities, developing empathy for those facing inequities or environmental challenges.
- Meanwhile, structured inquiry encourages critical thinking. Students are prompted to ask questions, analyze problems, evaluate solutions, and consider multiple perspectives—skills aligned with the OECD Learning Compass 2030, which emphasizes adaptability, critical thinking, and self-directed learning.
- Finally, responsible citizenship is nurtured by involving students in projects where their ideas matter. Whether designing campaigns, storytelling projects, or collaborative action plans, students recognize that their voices can contribute to positive change. They begin to understand that their actions, no matter how small, can ripple outward to affect communities, policies, and global outcomes.

Teaching the SDGs in language classrooms is not about adding more content to an already packed curriculum. Instead, it is about giving students a purposeful context for learning.

Integrating SDGs through INQUIRY-BASED LEARNING

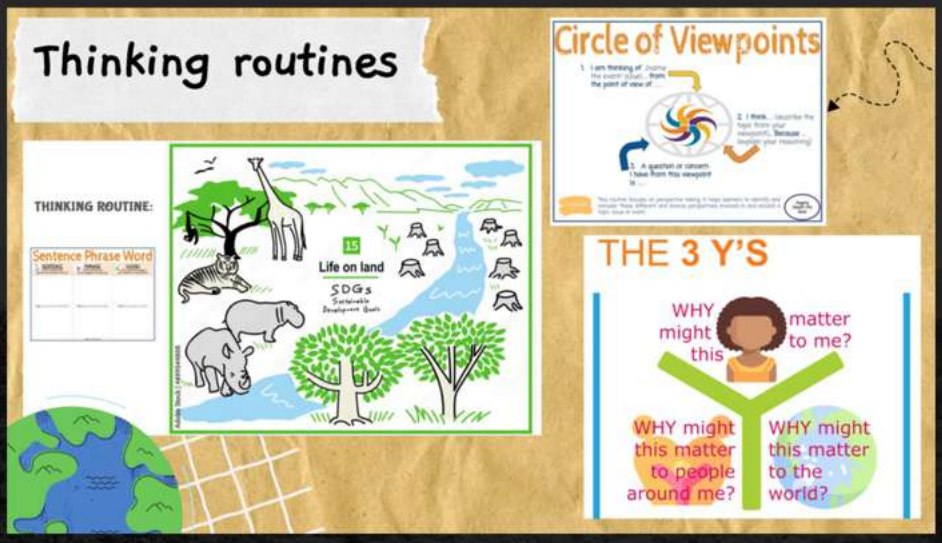
In my own teaching practice, I have implemented SDG-centered projects using an inquiry-based and student-centered approach with my elementary school students in Year 6. Students begin by exploring one SDG that resonates with them, guided by questions designed to provoke curiosity and reflection. For example, when investigating SDG 6, Clean Water and Sanitation, students might examine water usage in their own homes, the local community, or even globally. They reflect on causes and effects, compare perspectives, and consider feasible actions.

Key to this process are thinking routines, which help students structure their observations and insights. Some of my favorites include:

- **The 3Ys:**
  Students answer Why does this matter to me? Why does this matter to others? Why does this situation matter to the world? This routine encourages personal connection, empathy, and critical reflection, helping students see the relevance of global issues in their lives.

- **Circle of Viewpoints:**
  Students examine an issue from multiple perspectives, fostering critical analysis and collaborative discussion. This routine pushes learners to consider the roles, motivations, and challenges of different stakeholders, promoting more nuanced thinking.

- **Sentence–Phrase–Word:**
  Students select a sentence, a phrase, and a word from a reading or visual stimulus, helping them focus on meaning, key ideas, and language in a reflective manner. This routine encourages close reading and deep comprehension while also integrating vocabulary and expression.



Another approach I incorporate is slow looking, particularly when using visual materials. Students take time to observe an image, chart, or infographic before interpreting it, allowing them to notice details, ask meaningful questions, and consider deeper implications. When paired with SDG-related content, slow looking nurtures both language skills and curiosity about global issues. By slowing down, students develop observational acuity and the patience to think before reacting, skills that are critical both in education and in life.

DIGITAL STORYTELLING & CREATIVE EXPRESSION

To bridge the gap between knowledge and action, students engage in creative projects using digital tools. Platforms like FlipaClip or Scratch enable learners to create short animated videos or interactive presentations that reflect their research, ideas, and proposed solutions. For instance, students have developed videos addressing SDG 13, Climate Action, illustrating the effects of pollution, the importance of renewable energy, and strategies for community engagement.

These projects are multi-dimensional: they integrate language learning, digital literacy, collaboration, and creative expression. Students script dialogue, record narration, and design visuals, all in English, providing authentic opportunities for communicative practice. They also learn to understand complicated global ideas and how to express their thoughts clearly and convincingly.

The sense of ownership and agency is tangible—students are not simply completing assignments; they are authors, designers, and changemakers. This process also builds confidence, as students see that their contributions can educate, persuade, and inspire others. They learn to navigate uncertainty, make decisions, and communicate ideas in ways that matter beyond the classroom walls.

Students' Scratch projects showcase their research and messages for the community, combining creativity, storytelling, and digital skills.

Building 21st-Century skills THROUGH SDG PROJECTS

Working with the SDGs also fosters essential 21st-century competencies:

- Students develop digital and technology literacy as they use tools for research, presentation, and storytelling.
- As they conceptualize and execute original projects, they develop creativity and design thinking.
- They demonstrate collaboration and communication skills by working in teams, negotiating ideas, and presenting findings to their peers.

Importantly, students do not learn these skills in isolation; they naturally develop as they tackle meaningful, real-world problems. By addressing SDG challenges, learners practice problem-solving, adaptability, and critical thinking, all of which are vital for the workforce of tomorrow. Moreover, SDG-centered projects cultivate resilience and empathy, encouraging students to reflect on ethical considerations and the broader impact of their actions.

Connecting the classroom TO THE COMMUNITY

Another key dimension is fostering local and global connections. Students' projects can extend beyond the classroom through campaigns, community partnerships, or digital sharing platforms. For example, a group exploring SDG 12, *Responsible Consumption and Production*, collaborated with local NGOs to design a recycling awareness campaign for their school. Another class shared animated videos with younger students, helping them understand the importance of sustainable practices.

These experiences allow students to see the real-world relevance of their learning. When students engage with their communities, even in small ways, they recognize that knowledge is a tool for action. They develop a sense of social responsibility and a recognition that their contributions, however modest, matter. Students see the impact of their words and actions, and this instills a sense of empowerment that can influence future academic and personal choices.

Integrating SDGs into the classroom is not without challenges. Educators must balance language learning objectives with inquiry-based, open-ended exploration.

CHALLENGES & CONSIDERATIONS

Integrating SDGs into the classroom is not without challenges. Educators must balance language learning objectives with inquiry-based, open-ended exploration. Cultural or practical barriers may arise – some students may have limited access to technology, or certain SDG topics may be sensitive within a local context.

To address these challenges, careful scaffolding, planning, and reflection are essential. Teachers can provide structured prompts, model critical thinking, and create inclusive spaces for dialogue. Breaking down large projects into manageable steps, offering multiple modes of expression, and encouraging peer collaboration can help students navigate complexity without feeling overwhelmed. Flexibility and adaptability are key: the goal is not perfection, but meaningful engagement.

It is also important to reflect on the ethical dimensions of student projects. Discussions around SDGs can involve emotionally charged or controversial topics. Teachers must foster an environment that respects differing viewpoints and teaches students to engage thoughtfully and critically. Providing opportunities for reflection and debriefing helps students process ideas and emotions, fostering empathy, resilience, and well-being.

REFLECTIONS & TAKEAWAYS

Through my experience, I have observed that small shifts in teaching can spark big thinking in students. Introducing a new question, a thinking routine, or a global theme can transform classroom dynamics, making learning purposeful, engaging, and relevant. Students become more aware of the world and more confident in expressing their ideas, collaborating, and taking action.

By integrating the SDGs, educators can create a learning environment where students:

- Develop empathy by understanding diverse perspectives and real-world challenges.
- Enhance critical thinking by analyzing causes, evaluating solutions, and considering consequences.
- Cultivate creativity through expression in various forms – digital storytelling, design projects, or collaborative campaigns.
- Strengthen collaboration skills by working effectively with peers, negotiating ideas, and communicating clearly.

In essence, teaching for a sustainable future is about preparing students to care, think, and act. It is about helping them see themselves as contributors to a more just, equitable, and resilient world.

As we navigate a rapidly changing world, sustainability education is not an add-on – it is central to preparing students for both personal and professional futures. Embedding the SDGs in classroom practice encourages students to think globally, act locally, and create meaningfully, while also developing the competencies, empathy, and resilience they need to thrive in the 21st century.

The journey of integrating SDGs into language learning is ongoing. It requires creativity, patience, and reflection, but the rewards – for students, educators, and communities – are profound. As educators, we have the power to grow tomorrow's changemakers today, and in doing so, we help create classrooms where learning is purposeful, inclusive, and inspiring. By connecting language, critical thinking, creativity, and social responsibility, we are not only teaching English or content; we are shaping the mindsets, skills, and values that students will carry with them into their future careers and civic lives.

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Marcela Danowski is an Argentinian English educator and teacher trainer with over 20 years of experience. She specializes in creative, inquiry-based approaches to language learning and has presented at national and international education conferences. Marcela is passionate about integrating 21st-century skills and the Sustainable Development Goals into classroom practice

TEACHING HER TO BUILD TOMORROW

GENDER EQUITY IN AI

FOR SUSTAINABILITY

Sümeyye Kübra Dağlı

growing tomorrow
TEACHING FOR A SUSTAINABLE FUTURE

Education has long been recognized as a cornerstone for building equitable and sustainable societies. Yet in the 21st century, the stakes have never been higher. As AI reshapes industries, economies, and even social interactions, questions about access, inclusion, and justice become central. Who designs AI? Who benefits from it? Who risks being excluded? These questions go beyond technology – they cut to the heart of the global agenda for sustainable development.

PROJECT SHOWCASE

The United Nations' Sustainable Development Goals (SDGs) provide a guiding framework for answering these questions. SDG 4 (Quality Education) ensures equitable access to learning for all; SDG 5 (Gender Equality) demands the elimination of discrimination and equal participation in innovation; and SDG 17 (Partnerships for the Goals) calls for collaboration across nations, sectors, and communities. Together, they form the backbone of transformative education in the digital age.

Let's explores how a local project rooted in the SDGs became a global movement. When classrooms embrace equity, sustainability, and partnerships, they do more than educate students – they grow tomorrow.

GENDER INEQUALITY IN AI: WHY SDG 5 MATTERS

Despite decades of progress, women remain underrepresented in the AI and STEM fields. Studies show that globally, women make up only 27% of the AI workforce, with even smaller percentages in leadership positions (Collett et al., 2022). UNESCO (2025) highlights that girls are less likely than boys to aspire to careers in ICT or STEM from an early age, often due to societal stereotypes, lack of confidence, and limited role models.

This underrepresentation is not merely symbolic – it has structural consequences. AI systems trained on biased datasets risk reproducing and amplifying gender discrimination (Solyst et al., 2023). When women's voices are absent from the development process, AI tools often fail to meet diverse needs, further deepening the digital divide. UN Women (2024) emphasizes that bridging this divide is critical not just for fairness, but for the economic empowerment of women and the resilience of communities.

The **AI with Girls' Power project** was born from the conviction that SDG 5 is not optional – it is essential. By empowering girls with AI literacy, ethical awareness, and leadership opportunities, the project sought to rewrite the narrative: girls are not just users of AI, but creators, innovators, and changemakers.

In 2025, the author, Sümeyye Kübra Dağlı, founded the "AI with Girls' Power" project to tackle gender inequality in AI education. What began as a modest initiative soon grew into an internationally recognized program, earning three global awards, featuring in international campaigns, and culminating in the creation of HerMind AI Global, a movement designed to empower girls around the world through AI education and sustainability.

HerMindAI Global

DESIGNING THE PROJECT: LOCAL ROOTS, GLOBAL RELEVANCE

At its core, the project responded to the vision of SDG 4: Quality Education – ensuring that every student has access to inclusive, equitable, and future-oriented learning. The design was based on three interlinked principles:

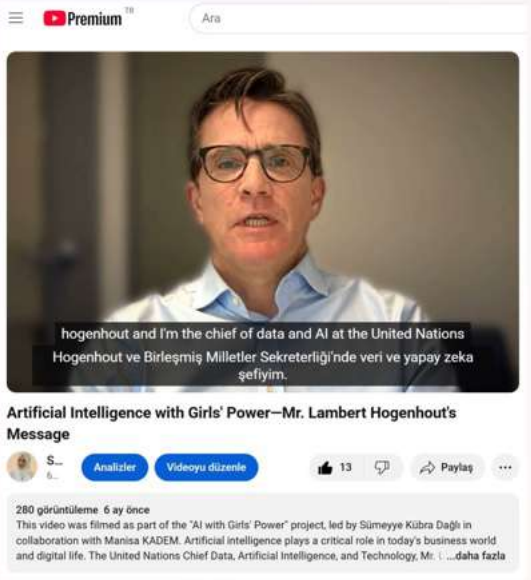
- Equity of access – Challenging stereotypes by providing girls with safe, supportive opportunities to explore AI.
- Sustainability integration – Linking AI education to the SDGs, from climate action to health, so that students saw relevance beyond coding.
- Future competencies – Cultivating adaptability, critical thinking, creativity, and ethical responsibility, in line with the OECD Learning Compass 2030 (OECD, 2019).

PARTNERSHIPS AS CATALYSTS

The initiative embodied SDG 17: Partnerships for the Goals. Project coordinator Sümeyye Kübra Dağlı was instrumental in building and managing these collaborations, ensuring the project's success on both local and global scales. She prepared the educational content, conducted the project's analysis, and presented the findings as a paper at scientific conferences. Her strategic efforts in applying for global competitions led to the project's international recognition and awards.

- **KADEM Manisa** – Assisting in obtaining legal permissions, selecting the school, and securing collaborations.
- **Şehzadeler District Directorate of National Education** – facilitating access to schools and curricula.
- International experts, including Mr. Lambert Hogenhout, Chief of the Data and AI Section at the United Nations; Prof. Dr. Cristina Vanberghen, Senior Expert at the European Commission; Dr. Nneka J. McGee, AI Expert, Education Strategist & Founder at Muon Global, who enriched the project with global insights.

By weaving local actors and international experts together, the project demonstrated that educational transformation requires collaboration at multiple levels – from classrooms to ministries, from NGOs to global organizations.



METHODOLOGY AND FINDINGS: MEASURING TRANSFORMATION

AI LITERACY GAINS

At the outset, students described AI in simplistic terms – "codes" or "algorithms." After participating in project activities, their definitions became more sophisticated, referencing data-driven learning, prediction models, and machine learning paradigms such as supervised, unsupervised, and reinforcement learning. This conceptual shift signaled not just memorization but genuine understanding.

ETHICAL AWARENESS

A major breakthrough was students' ability to articulate AI bias. Initially, they perceived AI as neutral. By the end, they could explain "bias in, bias out," provide examples such as gender bias in recruitment software, and discuss broader issues such as privacy, intellectual property, and labor displacement. This reflects the integration of SDG 5 values into technical education – making ethics inseparable from innovation.

CAREER ASPIRATIONS

At the outset, students described AI in simplistic terms – "codes" or "algorithms." After participating in project activities, their definitions became more sophisticated, referencing data-driven learning, prediction models, and machine learning paradigms such as supervised, unsupervised, and reinforcement learning. This conceptual shift signaled not just memorization but genuine understanding.

LINKING AI, SUSTAINABILITY, AND EMPLOYABILITY

One of the project's strengths was connecting AI to sustainability and employability. After researching how AI tools could help achieve the SDGs, students transformed their findings into podcasts using various AI tools. This hands-on approach allowed them to engage with real-world challenges spanning all 17 SDGs, including gender equality, climate action, and many more.

Through these experiences, they practiced collaboration, problem-solving, and entrepreneurial thinking. These competencies are not only crucial for employment but also for sustainable citizenship. By situating employability within the context of the SDGs, the project aligned workforce readiness with global responsibility.

RECOGNITION AND INTERNATIONAL AWARDS

The project's innovative model soon gained international acclaim, receiving three major awards below. These recognitions signaled that a classroom initiative could not only change students' lives but also contribute to global dialogues on education and sustainability.

UN SDSN INTERNATIONAL WOMEN'S DAY 2025 CAMPAIGN

The project was spotlighted in the campaign *"FOR ALL women and girls: Rights. Equality. Empowerment."* It showcased how local education can directly advance SDG 4 and SDG 5.

CREATIVITY IN EDUCATION SUMMIT (CES) 2025 – PARIS, FRANCE

Selected among the Top 10 projects worldwide, the initiative was honored by UNESCO IITE and OECD CERI. The summit theme, *"How AI Can Empower Creative Thinking in Education,"* resonated with our mission, celebrating creativity and empowerment. This achievement highlighted the role of SDG 17 partnerships in amplifying local innovations globally.

UNESCO DIGITAL LEARNING WEEK 2025 – PARIS, FRANCE

As a featured speaker in the session *"Rebalancing the Algorithm: Gender, AI and Inclusive Education,"* the author presented on *"Empowering girls through AI for an inclusive and ethical digital future."* This recognition underscored how inclusive AI education advances SDG 5 while ensuring that digital transformation leaves no one behind.

From Project to Movement: HerMind AI Global

Inspired by these achievements, Sümeyye Kübra Dağlı established **HerMind AI Global,** a non-profit organization that expands the vision of **AI with Girls' Power.**

HerMind AI Global's mission:

- To democratize access to AI education for girls worldwide (SDG 4).
- To embed sustainability and ethics into every stage of digital learning (SDG 5).
- To build international coalitions of educators, researchers, and youth leaders (SDG 17).

HerMind AI Global transforms a local story into a global movement, showing that classrooms can be incubators of sustainable futures when connected through partnerships and shared goals.

LESSONS FOR EDUCATORS AND POLICYMAKERS

The journey offers five lessons:

- Start small but align with the SDGs. Local projects gain global relevance when they explicitly link to SDG 4, 5, and 17.
- Measure transformation, not just outcomes. Shifts in ethics, aspirations, and confidence are as crucial as technical skills.
- Foster partnerships. Cross-sector collaborations amplify credibility and reach.
- Highlight role models. International experts gave students tangible examples of leadership and possibility.
- Sustain momentum through visibility. Media coverage, awards, and conferences helped the project transition into a global movement.

GROWING TOMORROW WITH SDGs

The AI with Girls' Power project illustrates how education can grow tomorrow by advancing quality education (SDG 4), gender equality (SDG 5), and global partnerships (SDG 17). It shows that classrooms are not isolated spaces but powerful catalysts for equity, innovation, and sustainability.

From its local roots in Türkiye to global recognition and the founding of HerMind AI Global, the project demonstrates that when educators empower girls in AI, they prepare not only individuals but entire societies for inclusive and ethical digital futures.

The lesson is clear: empowering girls through AI is not just about technology. It is about justice, sustainability, and hope. By investing in education that integrates equity, ethics, and partnerships, we can ensure that today's students – especially girls – become tomorrow's leaders of a more sustainable and inclusive world.

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Sümeyye Kübra Dağlı is a Science Teacher and PhD candidate in Educational Administration at Hacettepe University, focusing her doctoral research on artificial intelligence policies in education. She serves as a mentor in the UN SDSN Global Schools program, supporting educators worldwide in integrating the SDGs into teaching practices. As coordinator of the award-winning AI with Girls' Power project, she empowers girls in technology and AI, linking her work to SDG 5 on gender equality. In 2024, she was honored as "Teacher of the Year" and founded HerMindAI Global to scale her mission internationally.

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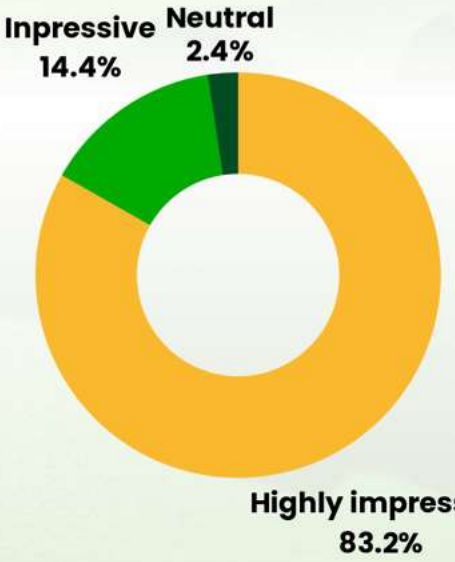

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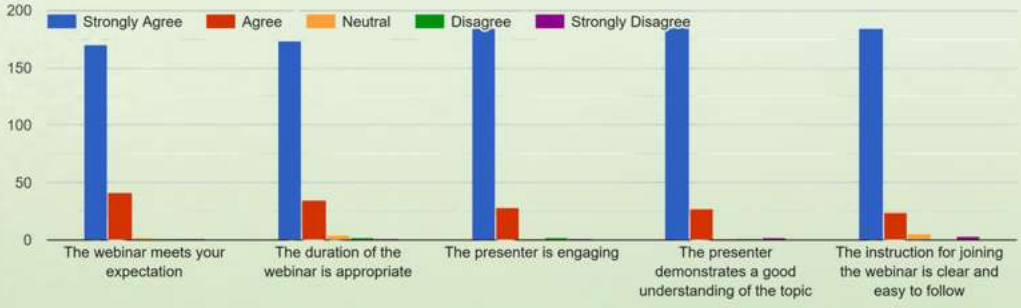

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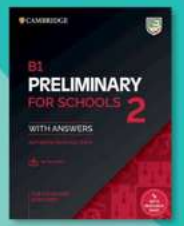

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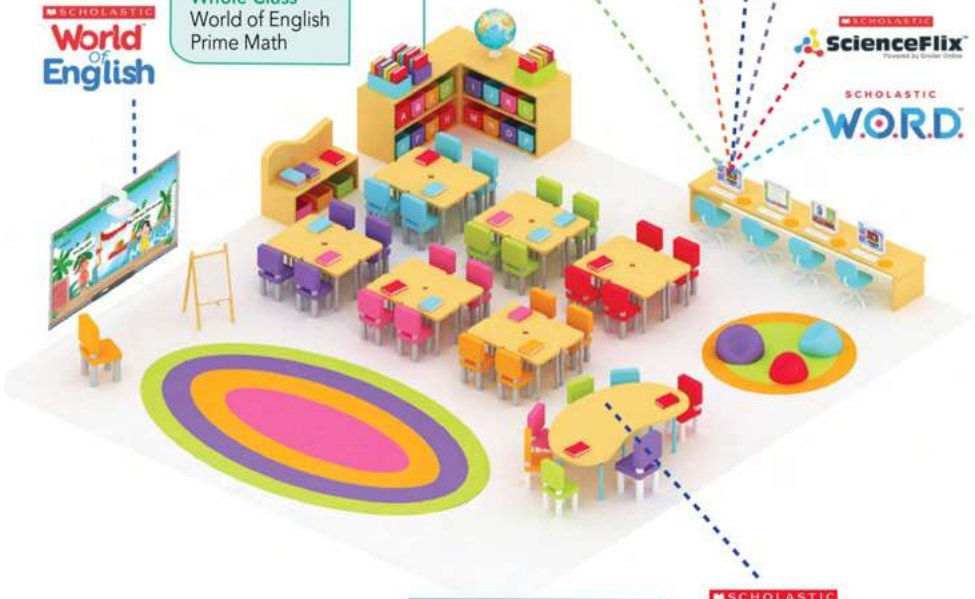

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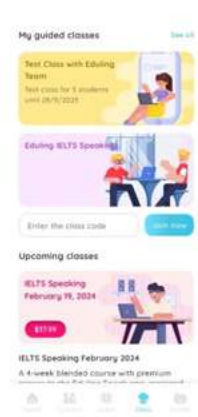

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