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Green school quality standards for SDG 4.7: Climate-ready education

Md Ammarul[1*], Tamalika Bhowmick[2], Dr. Shuvankar Madhu[3]
[1] University of Kalyani, Kalyani, Nadia, West Bengal, India
[2] Guest Lecturer, D. L College, Krishnagar, Nadia, West Bengal, India
[3] Assistant Professor, Department of Education, The University of Burdwan, Burdwan, West Bengal, India
Corresponding Author: Md Ammarul

Abstract
Education has been seen as a torchbearer of social change in all ages but given the current age marked by a growing climate crisis, education needs to lead the way for future generations towards building a sustainable ecosystem, reviving the equilibrium between natural and human world. Global frameworks such as the UN Sustainable Development Goals (SDGs) and UNESCO's Greening Education Partnership challenge us to respond through education in an urgency that requires preparing every learner to "be climate-ready", meaning we need to equip them with how they can be nature-minded and environmentally responsible. UNESCO Green School Quality Standard is a key tool to help schools alter their direction in substantive ways. This paper explores the relationship between this standard and SDG Target 4.7, which seeks to ensure that all learners acquire the knowledge, skills and values needed for sustainable development. Utilising both framework analysis and commentary on existing research, the study illustrates ways in which the practical guidelines of the standard both underpin and, at times, fail to fully align with SDG 4.7's broader more holistic learning objectives. One big discussion point is about the role of accreditation schemes, which can leverage change but also create some tension between making a model broadly viable and achievable worldwide on one hand, vs. seeing to it that it's implemented deeply and faithfully in local contexts on the other. The paper also talks about the main problems that make it hard to put the plan into action, like strict curricula, not enough teacher training, and not enough resources. At the same time, it points out the good things that can make a difference, like young people getting involved and strong community involvement. One of the hardest things to do might be to figure out how to measure real learning outcomes. It asserts that there is a fundamental misalignment between the transformative objectives of Education for Sustainable Development and the existing global monitoring framework for SDG 4.7, which predominantly emphasises policy inputs over actual learner competencies. The study shows that the way progress is measured right now does not fit with the ambitious goals of Education for Sustainable Development (ESD). To close this gap, it gives policymakers, accreditation bodies, and educators layered suggestions for how to go beyond surface-level indicators and really help make a generation ready for climate change.

Keywords: Green school quality standards, SDG 4.7, climate-ready education, Education for Sustainable Development (ESD), accreditation schemes, teacher preparation, authentic learning outcomes

Introduction

The global climate crisis is rightly seen as the biggest problem of the 21st century, and it requires a major change in how we treat nature, as well as in our values, behaviours, and social structures. In this context, as the UN Secretary-General has put it, humanity is in a "battle for our lives," and education is not just a bystander; it is a key player. That shows how education is the first step toward social change, paving the way for sustainable development and creating an eco-friendly environment in schools and their surroundings. The 2030 Agenda for Sustainable Development is the main plan for this global effort. It says that education is the key to making the future more fair, just, and sustainable.

Two important policy levers have gained a lot of traction in academia as part of this agenda, and researchers and scholars are now interested in studying them further. The first is Sustainable Development Goal 4 (SDG 4), which wants to "make sure that everyone has access to quality education and opportunities to learn for life." The second, more recent event is the Greening Education Partnership, which began at the UN Transforming Education Summit. Its goal is to get "every learner climate-ready" by working together to make schools, the curriculum, teacher training, and communities more environmentally friendly. It teaches students about the environment, morals, and values through the curriculum to make them more aware of the world around them and friendlier to it. These frameworks show that there is a strong political and institutional agreement that education needs to be fundamentally changed by changing its goals. These frameworks signal a powerful political and institutional consensus: education must be fundamentally reframed by revising its objectives to address the planetary emergency.

Review of Literature

The literature on SDG 4.7 stresses that ESD should be transformative, not just transmissive (UNESCO, 2020; UNESCO, n.d.-c). Gallwey (2016) asserts that attaining Target 4.7 necessitates a transformative shift in the conceptualisation of education, transcending conventional metrics to incorporate global citizenship and environmental stewardship.

To achieve this, Green Schools have been promoted as comprehensive models. The Center for Green Schools (n.d.) and programs like the Green Schools Challenge (Dream in Green, n.d.) push for making the campus, the curriculum,

and the community more environmentally friendly. According to Brockwell, Mochizuki, and Sprague (2025), schools need a lot of support from all levels of the institution if they want to get to 2030. There is disagreement, though, about the need for accreditation schemes.

Trying to put these ideas into practice runs into some serious problems. Poverty stands out as a major obstacle—it's hard to talk about quality education when so many families are struggling just to get by (Global Citizen, n.d.). On top of that, teachers aren't getting the support they need. Most don't have enough training or resources to bring the SDGs into their classrooms (Challenges to teachers, n.d.; Dahlin, n.d.; Foley, n.d.; Sustainability Directory, n.d.).

And then there's the problem of measurement. UNESCO has set up ways to track progress on indicators 4.7.4 and 4.7.5, but—according to critics like Unterhalter and North (2022) [28]—these top-down methods miss the mark. They say the official strategies don't quite capture what's really happening in schools or reflect the everyday challenges teachers and students actually deal with. That's why they're pushing for an "Inside-Out" approach, one that's closer to real classroom life and the tough intersections schools are facing (Civil society organisations, n.d.).

Even though Green School programs are growing and SDG 4.7 sets out clear expectations, there's still a real gap between these big greening projects and what students actually learn about sustainability. Sure, schools might get their environmental stamps of approval because they've made their buildings more eco-friendly, but it's tough to tell if those changes actually help students think, feel, or act differently when it comes to sustainability.

Most research tends to stick to surface-level stuff—like whether the curriculum mentions sustainability or if the school installed solar panels—without digging into whether these things really change student outcomes. There just isn't much solid evidence connecting the steps schools take to get "Green School" status with real, measurable gains in students' sustainability skills or attitudes. Plus, the usual frameworks for tracking progress miss a lot of the complicated realities that come up when different types of schools try to put these standards into practice.

Objectives of the Study

The present study is guided by the following objectives:

1. To critically examine the alignment between the UNESCO Green School Quality Standard and SDG 4.7 learning competencies.
2. To analyse the role and limitations of accreditation schemes in implementing climate-ready education.
3. To identify the key barriers and enabling factors in the implementation of Green School practices.
4. To explore the challenges associated with measuring learner competencies in the context of Education for Sustainable Development (ESD).

Research Questions

1. How effectively does the UNESCO Green School Quality Standard align with the holistic competencies demanded by SDG 4.7?
2. What are the practical limitations of current Green School accreditation schemes in fostering genuine climate-ready education?
3. What are the primary systemic and pedagogical barriers hindering the implementation of Green School practices?
4. Why is the measurement of learner competencies in ESD inherently challenging, and how can current indicator methods be improved?

Methodology

This paper takes a qualitative approach, relying on a thorough review of both official documents and research literature. The main sources are key global policy documents, like the UNESCO Green School Quality Standard (2024) [22], SDG indicator metadata from the United Nations, and measurement strategies from the UNESCO Institute for Statistics. To build a stronger policy analysis, the paper also brings in studies on real-world issues—like the challenges teachers face, how schools approach sustainability (BGS Vijnatham School, n.d.), and different ways to assess progress (Assessment of Global Citizenship, n.d.). By combining these different perspectives, the study creates a well-rounded view of the issues at hand.

Analysis & Findings

Symbiotic Relationship between Green Schools and SDG 4.7

The effectiveness of the global push for climate-ready education hinges on the coherence between institutional frameworks and desired learning outcomes. This section deconstructs the two central pillars of this movement-the UNESCO Green School Quality Standard and SDG Target 4.7-to map their alignment and expose the complexities of translating institutional action into learner competence.

The Architecture of the Green School Quality Standard

The UNESCO Green School Quality Standard gives schools a clear path to shape themselves around sustainability, with climate action at the core. It's built on the Whole-Institution Approach, which sits at the heart of UNESCO's Education for Sustainable Development plan for 2030. The idea is simple: if we want education to truly change lives and mindsets, we can't treat sustainability like just another subject or club. It has to become part of everyday life at school. In practice, that means students see and experience sustainable thinking everywhere—they don't just hear about it in class, they live it every day.

The standard operationalizes the WIA through four core, interconnected dimensions:

Fig 1: Core dimensions of WIA for standard operationalization

1. **School Governance:** Leadership, policies, and resources for long-term sustainability.
2. **Facilities & Operation:** Eco-friendly infrastructure and sustainable practices.
3. **Teaching & Learning:** Curriculum integration of ESD with transformative pedagogies.
4. **Community Engagement:** Partnerships with stakeholders to extend sustainability impact.

Unpacking the Multifaceted Nature of SDG Target 4.7

While the Green School standard provides the institutional "how," SDG Target 4.7 defines the educational "what" and "why." It is feasibly the most transformative target within SDG 4, articulating the ultimate purpose of a quality education in the 2st century. The target states:

By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.

This target is an umbrella for multiple, overlapping educational paradigms, principally Education for Sustainable Development (ESD) and Global Citizenship Education (GCED). To operationalize this broad vision, UNESCO frames the desired learning outcomes across three distinct but interrelated domains:

- **Cognitive Domain:** This encompasses the acquisition of knowledge, understanding, and critical thinking about global issues. It involves understanding the complexity and interconnectedness of sustainability challenges like climate change, biodiversity loss, and social inequality.

- **Socio-emotional Domain:** This relates to the development of values, attitudes, and social skills that enable learners to live and work together for a sustainable future. Key competencies include empathy, solidarity, a sense of belonging to a common humanity, and respect for diversity.

- **Behavioural Domain:** This focuses on the ability to take practical and responsible action. It includes skills for collaboration, communication, problem-solving, and the agency to engage in civic action at local, national, and global levels for a more peaceful and sustainable world.

A Critical Crosswalk: Aligning Actions with Competencies

A critical analysis reveals a strong conceptual alignment between the Green School standard's activities and the learning domains of SDG 4.7. The standard is explicitly designed to create an environment where these competencies can be cultivated. Table provides a crosswalk, mapping illustrative actions from the standard to the three learning domains.

Table 1: A Crosswalk Analysis of Green School Standard Activities and SDG 4.7 Learning Domains

Green School Dimension	Cognitive Domain (Knowledge & Critical Thinking)	Socio-emotional Domain (Values & Attitudes)	Behavioural Domain (Skills & Action)
School Governance	Learners participate in the Green Committee, understanding policy development and resource allocation for sustainability.	Fosters a sense of ownership, responsibility, and democratic participation in school life.	Learners develop skills in advocacy, negotiation, and collaborative decision-making within the committee.
Facilities & Operation	Students conduct energy/waste audits, analyzing data to understand the school's ecological footprint and identify areas for improvement.	Cultivates a culture of resource conservation and an appreciation for the tangible impact of collective action.	Students learn practical skills in data collection, measurement, and implementing conservation measures (e.g., composting, recycling).
Teaching & Learning	Curriculum integrates case studies of global climate justice, prompting critical analysis of systemic inequalities.	Develops empathy for communities disproportionately affected by climate change and fosters a sense of global solidarity.	Learners engage in project-based learning to devise and advocate for local climate solutions.
Community Engagement	Students research local environmental challenges by interviewing community elders and experts, gaining place-based knowledge.	Builds interconnectedness with the local community and respect for diverse forms of knowledge, including indigenous wisdom.	Learners collaborate with community partners on restoration projects or awareness campaigns, applying their learning to real-world action.

Source: Synthesized from UNESCO Green School Quality Standard and ESD/GCED frameworks.

This crosswalk does a good job of showing how the theory lines up, but it also brings up a real problem. When schools try to follow the standard, it's easy for them to just look the part—to put on a "veneer of compliance." It's usually much simpler (and gets noticed more) if a school installs a few recycling bins or sets up a garden, compared to actually changing what and how teachers teach, or rethinking who makes decisions in the school. A school can end up doing a bunch of green-looking projects and seem like it's doing great, but still hold onto the same old curriculum and never help students learn how to really question unsustainable habits. That's the trap: schools put energy into visible green projects, but skip the tougher, deeper work—helping kids build the values and critical thinking skills at the core of SDG 4.7. The showy stuff gets attention, but the real transformation runs much deeper, even if you can't see it right away.

Accreditation as a Lever for Systemic Change

For the Green School Quality Standard to move from a guidance document to a force for transformation, it requires a mechanism for implementation, recognition, and accountability. This is the role of school accreditation schemes, which serve as the primary channel for translating the global standard into local practice.

The Role of Accreditation Schemes

Accreditation schemes-ranging from government-led certifications to programs run by international non-profits-provide schools with a structured pathway to becoming "green." They offer a framework for self-assessment, a set of benchmarks for progress, and external validation that recognizes a school's commitment and achievements. By joining such a scheme, a school gains access to a network of peers, resources, and a clear process for continuous improvement, all of which are essential for navigating the complexities of a whole-institution transformation.

Analysing the "Expression of Alignment"

To create a globally harmonized approach and track progress towards the Greening Education Partnership's goal of greening 50% of schools by 2030, UNESCO has established a formal process for accreditation schemes to align with the standard. This process is centred on an "Expression of alignment" template, which sets a minimum threshold for compliance. To be officially recognized as aligned, an accreditation scheme's criteria must cover:

at least one-third of the suggested activities for each of the four key dimensions of a Green School, with one essential action identified within each dimension.

This model is intentionally flexible. It is designed to be inclusive and adaptable to the vast diversity of educational contexts worldwide, from well-resourced urban schools to rural institutions with significant constraints. By setting a relatively low bar for entry, the framework encourages broad participation, aiming to build a critical mass of schools engaged in the greening movement.

Strengths and Weaknesses of the Threshold Model

The “one-third” threshold model makes going green easier and faster for schools, helping them join a global network and show progress toward the 2030 target. But the downside is that it can encourage a “minimum effort” or checklist approach, where schools do just enough to get the Green label without real transformation. This creates a pressure between scalability and depth - we can quickly reach more schools, but risk losing the true spirit of sustainability and education for lasting change.

The Realities of Implementation: Navigating Barriers and Seizing Opportunities

Revolving a Green School vision into reality is not easy. Schools face many challenges but also have strong opportunities to make the expected change happen.

Systemic Barriers to Greening Schools

The implementation of a whole-institution approach to sustainability often collides with entrenched educational structures and systemic limitations.

- **Curricular and Pedagogical Barriers:** One of the most significant obstacles is the "overcrowded curriculum". Overloaded syllabi and exam-driven teaching leave little room for creative, project-based learning on sustainability.

- **Teacher Capacity:** A critical bottleneck is the widespread lack of adequate teacher preparation. Many teachers report feeling unprepared to facilitate discussions on climate justice or guide students in action-oriented projects, leading to a reliance on traditional, transmissive teaching methods.

- **Resource and Institutional Barriers:** Limited funds and weak administrative backing make it hard to invest in eco-friendly infrastructure or sustain green initiatives. Beyond funding, a lack of consistent support from school administration or district-level leadership can stifle teacher-led initiatives and prevent the development of a coherent, whole-school vision.

- **Socio-Political Barriers:** In some contexts, ESD can be perceived as politically or ideologically charged. Curricula that encourage critical examination of dominant economic models, consumption patterns, or issues of social and environmental justice may face resistance from parents, community groups, or political bodies, creating a chilling effect on educators.

Catalysts and Opportunities for Transformation

Despite these barriers, numerous factors can serve as powerful catalysts for successful implementation.

- **Youth Agency and Leadership:** The Greening Education Partnership and the Green School standard explicitly recognize young people as key actors and agents of change. Eco-clubs, student-run energy audits, waste reduction campaigns, and advocacy efforts to school boards can generate momentum from the bottom up, creating a sense of urgency and shared purpose that can be more compelling than top-down mandates.

- **Whole-School Leadership:** The active, visible, and sustained commitment of school principals and governing bodies is arguably the single most important enabling factor. When leaders champion the vision of a green school, they create a supportive institutional culture, legitimize the work of teachers and students, and are better positioned to align resources and priorities with sustainability goals.

- **Community Partnerships:** Building strong, reciprocal partnerships with the surrounding community is essential for breaking the isolation of the school. Collaborating with local environmental organizations, businesses, universities, and indigenous community leaders can provide invaluable resources, guest expertise, mentorship opportunities, and authentic, place-based learning experiences. These partnerships anchor the school's sustainability efforts in the real-world context of its community, making the learning more relevant and impactful.

A school might do a great job teaching systems thinking, teamwork, and caring for the environment, but students don’t stay in that bubble forever. Once they graduate, they enter a bigger world—universities, testing organizations, and workplaces that often still value old-school, specialized knowledge over broader skills like the ones built through education for sustainable development. So, while a school can spark real change inside its own building, that influence can hit a wall if the outside world doesn’t back it up. To really let Green Schools live up to their promise, we need to see changes not just in the schools themselves, but also in the larger systems that surround them.

The Measurement Conundrum: Evaluating the Impact of Green Schools on Learner Competencies

The ultimate test of any educational initiative is its impact on learners. For Green Schools, this means assessing whether they are successfully cultivating the competencies outlined in SDG Target 4.7. It is in this domain of measurement and evaluation that the global agenda for climate-ready education faces its most significant and unresolved challenges.

The Challenge of Measuring SDG 4.7

The wording of SDG Target 4.7 is tricky when it comes to measurement. When you read phrases like "knowledge and skills needed to promote sustainable development," you can tell they're broad and open to interpretation. There's no one clear definition everyone agrees on, which makes it tough to design standard assessment tools that actually work everywhere.

This plays out in the official global indicator for the target—Indicator 4.7. It looks at how much global citizenship education and education for sustainable development (including gender equality and human rights) are built into things like policies, curricula, teacher training, and student assessment. But there's a real gap here: the indicator tells us about policy intentions and what's on paper—not what students actually learn. A country could check all the boxes by including these topics in policies and plans, but that doesn't mean they're showing up in classrooms or making any real difference for students.

Critiques of Current Assessment Tools

Efforts to develop direct assessments of student competencies have also faced significant limitations. Existing international large-scale assessments, which are sometimes used to derive thematic indicators for SDG 4.7, tend to focus heavily on the cognitive domain. They are better equipped to measure students' knowledge of environmental science or geoscience than they are to capture the crucial socio-emotional and behavioural dimensions of ESD. Competencies such as empathy, a sense of global solidarity, a commitment to justice, or the agency to take collective action are notoriously difficult to measure through standardized tests.

Furthermore, much of the global monitoring relies on self-reported data from national governments. While useful for understanding policy landscapes, this approach raises serious questions of validity and reliability when used as a proxy for educational outcomes, as it reflects official aspirations rather than the complex realities of classroom practice.

The Knowledge-Action Gap

One of the biggest hurdles in measuring the impact of Green Schools is the stubborn "knowledge-action gap," sometimes called the "attitude-behavior gap." It's well-known in environmental education — you can teach students all about climate change, maybe they get top marks on the science, but that doesn't mean they'll ditch wasteful habits or start making eco-friendly choices. Just knowing isn't enough to drive real change. So, if you focus just on what students have memorized, you miss the point of what Green Schools are supposed to be doing.

What Education for Sustainable Development (ESD) really sets out to do is shape students into people who don't just know the facts, but who care, feel empowered, and actually take action. That's why we need better ways to measure success; the usual tests and checklists just don't capture this kind of transformation.

Here's where it gets messier. The way the world tries to track progress—like with SDG 4.7—just isn't set up for this deeper level. Right now, the system looks for whether countries say they're including ESD in their schools. But it doesn't ask the bigger question: are students coming out of these programs ready to make real change? So, a school can get accredited, an entire country can file glowing reports, and the system still doesn't tell us if kids are actually becoming capable leaders for a sustainable future.

This accountability gap isn't a minor technicality; it's a major fault in the whole setup behind global education for sustainability. If we keep missing what matters most—real, lasting change in students—then even the best-intentioned policies start to fall flat.

Charting a Course for Climate-Ready Education

We need to build climate-ready education systems, and the UNESCO Green School Quality Standard gives us a solid framework to get there. This analysis shows the standard really fits with the bold vision behind SDG Target 4.7. Basically, it draws a direct line from what schools do—things like how they handle governance, facilities, teaching, and partnerships with the community—to how students actually grow, both in what they know and how they act and feel.

But let's be honest—the gap between setting a standard and actually making it work in schools is messy. The analysis points out some real obstacles. The accreditation system, meant to work in countries all over the world, can easily slip into being just a box-ticking exercise if we're not careful. Schools might chase numbers or easy wins instead of focusing on deep, meaningful change. Real-world challenges—resources, capacity, local priorities—just add to the struggle.

Worse, the whole effort gets tripped up by a global measurement system that doesn't really match what Green Schools are trying to do. Instead of tracking how much students actually learn or grow, the current system cares more about policies on paper than what's truly happening with students—the heart of SDG 4.7. That mismatch leaves schools doing the hard work with little to show for it in the eyes of those holding them accountable.

Addressing these challenges requires a concerted, multi-layered approach.

Multi-Layered Recommendations

- **For Policymakers and UNESCO:** First off, fixing how we measure progress has to be the top priority. We need better ways to track SDG 4.7—something more sophisticated than just checking if the policies exist on paper. It's time to push for indicators that actually show what's happening in real schools, capturing meaningful and local changes in learning. On the national front, policymakers can help Green Schools thrive by shaking up high-stakes exams, so they value skills tied to Education for Sustainable Development (ESD). Plus, ESD principles need to be part of what all teachers learn, whether they're just starting out or already in the field.

- **For Accreditation Bodies:** There's a real risk of ESD becoming just another box-ticking exercise. Accreditation shouldn't stop at saying "yes, this school qualifies." A better approach is to set up tiered recognition—think Bronze, Silver, Gold—so schools get credit for starting, but have a clear reason to keep improving. Also, these bodies can do more. Instead of just handing out certificates, they should help schools build stronger teaching and leadership, offer real professional growth, and support culture change. The focus has to go beyond paperwork and move toward deep learning.

- **For Schools and Educators:** None of this works without serious commitment on the ground. Schools need to take the Whole-Institution Approach seriously—integrate ESD fully into every subject, not just as an add-on. Authentic student leadership matters, too; students should help shape their own learning and school environment. And if schools want their work in ESD to last and spread, they can't go it alone. Building real partnerships in the community connects what happens at school to people's lives outside, making learning more relevant and the change more sustainable.

Discussion

These findings point to a turning point for global ESD. Rolling out SDG 4.7 with the Green School Quality Standard (UNESCO, 2024) [22] is important, sure. But it's just the starting line. The limits of current accreditation schemes make it pretty clear—we risk falling into the trap of 'greenwashing' schools, where it looks like we're making progress just because campuses are "greener," while the real challenge of changing how we teach gets pushed aside.

Unterhalter and North (2022) [28] make a good point: most of our measurement tools are top-down and miss the real story. It's easy to count recycling bins or curriculum documents, but much harder to capture things that matter—like whether students are building resilience, changing their behavior, or really growing as global citizens (Global Citizenship Foundation, n.d.). If we want real progress, we need to focus on building teachers' skills and coming up with assessment tools that fit local needs, not just checking boxes for infrastructure upgrades.

Conclusion

The Green School Quality Standard is a solid guide for making education more climate-ready, but it only works if schools actually bring it to life in a real, meaningful way. On paper, it fits well with the goals of SDG 4.7. In reality, though, there's a gap between what the world hopes to achieve and what schools can actually do—especially in rigid systems with tight budgets and old-school methods for tracking progress. Sure, getting accredited can kickstart change, but it's easy for it to turn into just another box to tick if schools aren't committed to real learning and involving the whole community. If Green Schools are going to work, we can't just rely on checklists or policies. We have to help students build real-world skills like empathy, critical thinking, and problem-solving, so they're ready to tackle the climate crisis with both courage and creativity. That means long-term studies, smarter ways to measure progress, and a real effort to make these big global plans fit local needs. At the end of the day, greening education isn't just about hitting some target—it's about raising a generation that knows how to live in balance with the Earth and can actually lead us toward a more just, sustainable future.

References

1. Assessment of global citizenship education competencies among Grade 5 to Grade 2 students of Scuola Dei Bambini. ResearchGate. https://www.researchgate.net/publication/38883778_Assessment_of_Global_Citizenship_Education_Competencies_among_Grade_5_to_Grade_2_Students_of_Scuola_Dei_Bambini
2. BGS Vijnatham School. Sustainable schools: Promoting green practices in education. https://bgsvstirupati.com/sustainable-schools-promoting-green-practices-in-education/
3. Brockwell AJ, Mochizuki Y, Sprague T. Steering green schools towards 2030 and beyond. Journal of Sustainable Education,2025:5(2):2–30.
4. Center for Green Schools. What is a green school? https://centerforgreenschools.org/about/what-green-school
5. Challenges to teachers implementing Sustainable Development Goals frameworks in Qatar. MDPI. https://www.mdpi.com/207-050/5/5/479
6. Civil society organisations and Target 4.7 of the SDGs: Towards intersectionality for promoting a more just and sustainable world. International Journal of Development Education and Global Learning. https://journals.uclpress.co.uk/ijdeg/article/id/3072/
7. Dahlin JE. 7 challenges in education for sustainable development - and how you can address those. http://www.jonerikdahlin.com/uncategorized/7-challenges-in-education-for-sustainable-development-and-how-you-can-address-those/
8. Dream in Green. Green schools challenge. https://dreamingreen.org/green-schools-challenge/
9. Foley. Education for sustainable development barriers. https://www.ccsenet.org/journal/index.php/jsd/article/view/0/44335
10. Gallwey T. Perspectives on Target 4.7 of the Sustainable Development Goals. Policy & Practice: A Development Education Review, 206, 23, 24–42. https://www.developmenteducationreview.com/sites/default/files/article-pdfs/Gallwey%20Perspectives%2023.pdf
11. Global Citizen. 2 barriers to education for children living in poverty. https://www.globalcitizen.org/en/content/2-barriers-to-education-around-the-world/
12. Global Citizenship Foundation. What is global citizenship education? https://www.globalcitizenshipfoundation.org/about/global-citizenship-education
13. Mission 4.7. Transformative education. https://www.mission4point7.org/
14. Reviews of research on the attitude-behavior relationship and their implications for future environmental education research. ResearchGate. https://www.researchgate.net/publication

/334252237_Reviews_of_research_on_the_attitude-behavior_relationship_and_their_implications_for_future_environmental_education_research
15. SDG Academy. Mission 4.7. https://sdgacademy.org/mission4point7/
16. Sustainability Directory. What are the barriers to sustainability education? https://lifestyle.sustainability-directory.com/question/what-are-the-barriers-to-sustainability-education/
17. The Global Goals. Goal 4: Quality education. https://globalgoals.org/goals/4-quality-education/
18. UNESCO. Expression of alignment to the Green school quality standard. Greening Education Partnership.
19. UNESCO. SDG 4.7. https://tcg.uis.unesco.org/webinar-sdg4-7-june-2020/
20. UNESCO. What you need to know about global citizenship education. https://www.unesco.org/en/global-citizenship-peace-education/need-know
21. UNESCO. Education for sustainable development: A roadmap, 2020.
22. UNESCO. Green school quality standard: Greening every learning environment, 2024. https://doi.org/0.54675/YFRE448
23. UNESCO GEM Report. Target 4.7: Sustainable development and global citizenship, 206. https://gem-report-206.unesco.org/en/chapter/target-4-7-sustainable-development-and-global-citizenship/
24. UNESCO Institute for Statistics. A measurement strategy for SDG thematic indicators 4.7.4 and 4.7.5. GAML. https://uis.unesco.org/sites/default/files/documents/gaml4-measurement-strategy-sdg-target4.7.pdf
25. UNESCO Technical Cooperation Group. SDG Target 4.7 and a greening curriculum indicator methods of data collection and analysis, 2025. https://tcg.uis.unesco.org/wp-content/uploads/sites/4/2025/02/EDSC..3.4.GCI-Methods.pdf
26. United Nations. Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. https://sdgs.un.org/goals/goal4
27. United Nations Statistics Division. Extent to which (i) global citizenship education and - SDG indicator metadata. https://unstats.un.org/sdgs/metadata/files/Metadata-04-07-0.pdf
28. Unterhalter E, North A. Designing indicators and assessment tools for SDG Target 4.7: A critique of the current approach and a proposal for an ‘Inside-Out’ strategy. Compare: A Journal of Comparative and International Education,2022:52(7):045–062. https://doi.org/0.080/03057925.2022.229957