



Teachers have their say

Motivation, skills and opportunities
to teach education for sustainable
development and global citizenship

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SHORT SUMMARY

Are teachers ready to help us learn to live together sustainably?

Teachers have the power to help learners develop the knowledge, skills, values and behaviours to address global challenges and contribute to the building of a more just, peaceful, sustainable world.

However, this global survey of 58,000 teachers, conducted by UNESCO and Education International, shows that while many teachers are motivated, a quarter still do not feel ready to teach themes related to education for sustainable development (ESD) and global citizenship education (GCED).

Teachers feel least confident to teach sustainable consumption and production, vital for the necessary transformation of behaviour needed to start living within our ecological limits. And fewer than 40% of teachers surveyed are confident in teaching about the severity of climate change even though 95% of teachers believe that it is important or very important to teach.

Furthermore, despite recent global attention on the need to confront the history of racism and discrimination, 15% of teachers cannot explain these issues to their students. One in four do not feel ready to teach human rights and gender equality.

Encouragingly, over 90% of those surveyed think issues relating to ESD and GCED were important and over 80% wanted to continue learning about them.

Governments, education policy-makers, academics, educators and teacher trainers need to work together to meet this need, and support teachers to address important global challenges in the classroom.

**1 in 4
teachers**

**do not feel ready to
teach themes related to
sustainable development
or global citizenship
and peace**



unesco

"Since wars begin in the minds of men and women it is in the minds of men and women that the defences of peace must be constructed"

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to teach education for sustainable
development and global citizenship

Foreword

Education must empower us to care for the planet, build a more just society and live together in peace.

Intensified global warming, increased natural disasters linked to climate change, massive loss of biodiversity and widespread pollution are all signs the Earth urgently needs the sustainable solutions that can only come from knowledge and action. We continue to live beyond our ecological means in ways that disproportionately impact the most vulnerable, further entrenching persistent inequalities.

Concurrently, we have seen a rise in violent and hateful ideologies and continued conflicts fuelled by a pandemic of fake news and conspiracy theories. In the face of such challenges, there is a pressing need to prepare learners – of all ages – to engage in the world as responsible and concerned citizens contributing to the search for viable and sustainable solutions.

Education must be a path for personal transformation, which can lead to the societal changes needed for us to address global problems and create a more sustainable, peaceful and just world for all.

This cannot happen without teachers. Teachers stand at the forefront of localized change, introducing students to the knowledge, skills, values and abilities to act sustainably, live together peacefully and build a more just society. But teachers need to be supported and empowered to reach their potential as change-makers for social justice, human rights, peace and sustainable development. As a starting point, we must listen to them – learn from their wealth of experiences and gain understanding from their concerns.

To this end, this report examines how ready teachers are to meet the promise of Sustainable Development Goal 4 on Education and Target 4.7, which calls on countries ‘to ensure that all learners acquire the knowledge and skills needed to promote sustainable development’.

According to the over 58 000 teachers consulted, only one-third of teachers feel they can explain these issues well to their students. They understand the importance of teaching education for sustainable development (ESD) and global citizenship education (GCED) and are motivated to teach these essential topics. However, their drive is often overshadowed by the lack of available resources and structural support.

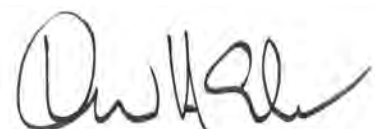
The message is clear: Teachers need more support from schools, training institutions, communities, education systems and governments at all levels, if they are to succeed in imbuing the next generations with the principles and behaviours that enable the building of more sustainable ways of life.

We call on lawmakers, policy-makers, educational planners, curriculum developers, academics, teacher trainers, textbook writers, educators, community leaders and school leadership and staff to take action to create enabling environments for the teaching of ESD and GCED.

Together, let us make sure every teacher is ready to teach every student to be just stewards in the care of others, the planet, and the creation of a better future for all.



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List of acronyms

COVID-19	Coronavirus disease
EI	Education International
EFA	Education For All
ESD	Education for sustainable development
GCED	Global citizenship education
OECD	Organisation for Economic Co-operation and Development
PPMI	Public Policy Management Institute
SDGs	Sustainable Development Goals
SOGI	Sexual orientation and gender identity
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund



1. Executive summary

Education for sustainable development (ESD) and global citizenship education (GCED) are crucial to ensure sustainable development that meets the needs of the present generations without compromising the ability of future generations to meet their needs. Since teachers play a key role in imparting ESD and GCED, UNESCO and Education International (EI) investigate in this study teachers' readiness to implement ESD and GCED. The data contained in this publication were collected through a global online survey targeting primary and secondary teachers conducted between 1 March and 25 April 2021. The results focus on teachers' perceptions of their ability to contribute to achieving SDG target 4.7, which calls for countries to 'ensure that all learners acquire the knowledge and skills needed to promote sustainable development'.

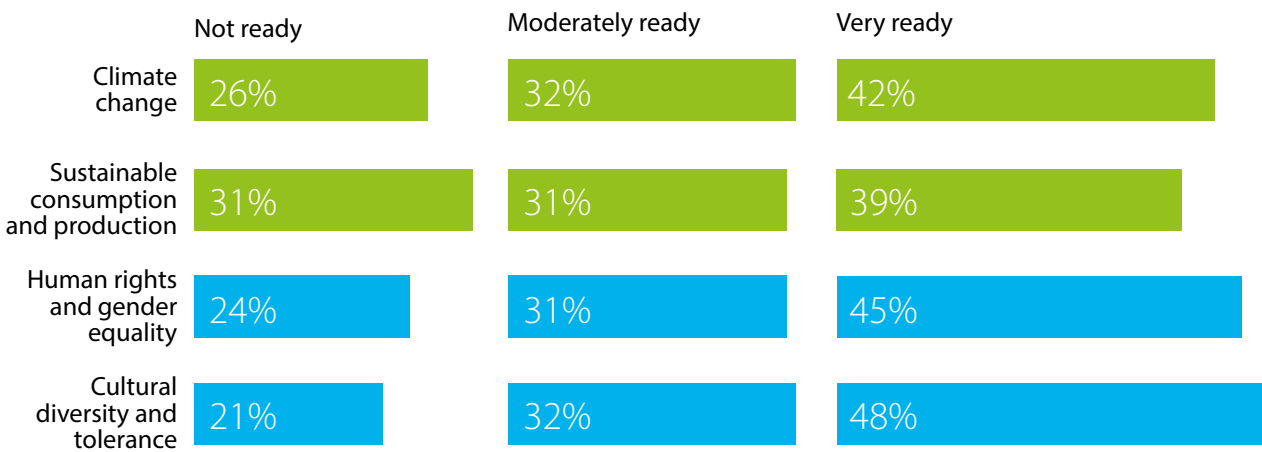
ESD is 'learning to live sustainably'. GCED is 'learning to live together' in peace. Both ESD and GCED cover a wide range of distinct and at times overlapping issues. For the purpose of this study, the data collected focus on the extent to which teachers are ready to teach four thematic sub-areas of ESD and

GCED: sustainable consumption and production; climate change; human rights including gender equality; and cultural diversity and tolerance.

Teacher readiness relates to the motivation, skills and opportunities that teachers have to teach the ESD and GCED themes effectively and to instil in students the knowledge, skills, values, attitudes and behaviours that will enable them to forge sustainable, just and peaceful societies, through individual and collective action at local and global levels. Teacher readiness is best where individual-level (motivation, skills) and system-level (skills, opportunities) enabling factors intersect.

The results of the global teacher survey show that teachers are generally aware of and committed to teaching ESD and GCED themes. However, of the four themes studied, teachers report being more ready to teach cultural diversity and tolerance and human rights than climate change. They feel significantly less well-informed and confident about teaching sustainable consumption and production (Figure 1), and it is the least commonly taught theme.

Figure 1. Teachers' feelings of readiness to teach ESD and GCED themes (percentage of respondents)



Data Source: Global Teacher Survey (2021). (n=58,280).

Teachers understand the importance of the cognitive, behavioural and socio-emotional learning dimensions across all four themes. However, teachers feel more confident teaching cognitive skills, and less confident and knowledgeable about behavioural learning and socio-emotional perspectives, especially in ESD.

Awareness of the importance and urgency of teaching ESD and GCED issues increases with age and experience.

Teachers are interested in learning about ESD and GCED topics and would like greater opportunities to develop curriculum materials to teach these topics. Teaching methods that require fewer tangible resources from teachers tend to be more commonly used, in part because of a lack of resources.

Assessment of ESD and GCED is difficult for teachers: nearly 40 per cent of respondents face significant challenges in assessing students' ability to act in line with ESD and GCED principles. More than one-third of respondents do not have tools or guidelines for assessing interdisciplinary topics. However, teachers are making use of non-traditional assessment methods to bridge the gaps.

Teachers report that teacher education insufficiently covers sustainable consumption and production and climate change. Teachers with more education and classroom experience feel more capable and confident in teaching ESD and GCED topics.

Teachers say that lack of curriculum coverage of ESD and GCED is the most profound system-level barrier to teaching ESD and GCED themes. Curricula overcrowded with other subjects mean teachers can have little time to teach ESD and GCED. Lack of relevant equipment and tools was the most frequently reported barrier at school level, while resistance to teaching the topic due to its controversial nature was least frequently reported. Teachers need more ESD and GCED education resources (in terms of content, material and guidelines) to support their teaching in an engaging and innovative way across the three learning dimensions.

Schools, in particular in rural areas, provide insufficient resources and support to help teachers implement ESD and GCED in an engaging and effective way. Less than half of respondents report that their schools have action plans on climate change or sustainability or funds available for school trips. Teachers would like more engagement with the wider community in providing ESD and GCED.

The COVID-19 pandemic has impacted teachers' ability to deliver ESD and GCED, just as in other subjects. Some teachers have benefited from targeted efforts by governments and non-formal teacher training institutions to provide online solutions and materials for teachers during the pandemic, while others have received limited support.

To give teachers the support they need to effectively provide ESD and GCED, this report makes the following recommendations for lawmakers, policy-makers, educational planners, curriculum developers, teacher trainers, teachers, school leadership and personnel, communities and other actors:

- > Consider ESD and GCED as core components of quality education.
- > Integrate ESD and GCED as core curricular components in primary and secondary education.
- > Provide high-quality and relevant teaching and learning materials for ESD and GCED.
- > Provide high-quality professional development and teacher training to teach ESD and GCED.
- > Provide training and tools to support teachers in assessing students on ESD and GCED.
- > Involve teachers – especially through their elected representatives – in determining policies, curricula and assessment methods on ESD and GCED.
- > Support teacher leadership and autonomy.
- > Create a supportive school environment for teaching ESD and GCED.
- > Foster broader collaborations with academic institutions for ESD and GCED.
- > Ensure the active participation of students in determining ESD and GCED policies and practices.
- > Finally, prioritize ESD and GCED to ensure adequate investments are made to support teachers to teach ESD and GCED.

Key findings

Are teachers motivated and aware?

- 1 Generally, respondents feel well-informed about the four ESD and GCED themes. However, teachers feel significantly less well-informed and confident about teaching sustainable consumption and production.
- 2 Teachers feel more confident teaching cognitive skills, and less confident and knowledgeable about behavioural learning and socio-emotional perspectives, especially in ESD.
- 3 Teachers are interested in learning about ESD and GCED topics and in developing curriculum materials to teach these topics.
- 4 Awareness of the importance and urgency of teaching ESD and GCED issues increases with age and experience, but awareness does not necessarily translate into increased teaching in practice.

Are teachers able to teach ESD and GCED?

- 5 Sustainable consumption and production is the least commonly taught theme, mainly because teachers do not have the necessary knowledge and skills to teach it.
- 6 Teaching methods that require fewer tangible resources from teachers tend to be more commonly used.
- 7 Teachers collaborate on approaches and projects more than on standards.
- 8 Nearly 40 per cent of respondents face significant challenges in assessing students' ability to act in line with ESD and GCED principles.
- 9 More than one-third of respondents do not have tools or guidelines for assessing interdisciplinary topics.

- 10 Teachers are going beyond traditional assessment methods in ESD and GCED.
- 11 Female teachers teach ESD and GCED more frequently and report fewer difficulties teaching ESD and GCED.
- 12 Teachers report that teacher education insufficiently covers sustainable consumption and production and climate change, yet teachers with more education and classroom experience feel more confident in teaching these themes.
- 13 Teachers say that lack of curriculum coverage of ESD and GCED is the most profound system-level barrier to teaching ESD and GCED themes.

Are teachers supported?

- 14 Overcrowded curricula can inhibit teachers' ability to teach ESD and GCED.
- 15 Lack of relevant equipment and tools was the most frequently reported barrier at the school level.
- 16 Few teachers have ESD and GCED education resources (content, material or guidelines) to support teaching in an engaging and innovative way across the three learning dimensions.
- 17 Schools, in particular in rural areas, provide insufficient support to help teachers implement ESD and GCED in an engaging and effective way.
- 18 Students do not have a sufficient voice in ESD and GCED at schools, in particular at primary school level.
- 19 Teachers want a whole-school approach and more involvement from the wider community.
- 20 Some teachers have benefited from targeted efforts by governments and non-formal teacher training institutions to provide online solutions and materials for teachers during the COVID-19 pandemic, while others have received limited support.



2. Introduction

Since the establishment of the 2030 Agenda for Sustainable Development (United Nations, 2015) and the Education 2030 Agenda (UNESCO, 2016), the concepts of education for sustainable development (ESD) and global citizenship education (GCED) have increasingly been recognized and accepted within the education community. However, education stakeholders from across the world report that teachers are inadequately supported in implementing ESD and GCED. UNESCO's progress report found that 75 per cent of reporting countries covered ESD and GCED only to a limited extent in pre-service teacher training (UNESCO, 2018a). Moreover, up-to-date and globally comparable data are not readily available on what teachers need to teach ESD and GCED comprehensively and how teachers apply ESD and GCED in classrooms (Yemini et al., 2019). Since teachers play the key role in imparting ESD and GCED, their readiness to teach these critical subjects needs to be better understood.

To begin to bridge this gap, the United Nations Educational, Scientific and Cultural Organization (UNESCO) and Education International (EI) have joined forces to investigate teachers' readiness to implement ESD and GCED. This publication presents the results of a global online survey targeting primary and secondary teachers conducted between 1 March and 25 April 2021, and elucidates the different strategies and practices used by teachers in ESD and GCED and the interventions needed to increase their capacity to implement ESD and GCED.

2.1 Key concepts

2.1.1 The Sustainable Development Goals (SDGs) and SDG Target 4.7

Today, current and future generations face challenges that were unimaginable just a few decades ago. Worsening environmental conditions make it

vital to move towards more sustainable modes of development and to foster human well-being.

Sustainable development ensures that environmental, societal, cultural and economic considerations are balanced in the pursuit of an improved quality of life for all, today and in the future (United Nations, 2015). The most widely used definition of sustainable development is the one developed in the Brundtland report, *Our Common Future* (World Commission on Environment and Development, 1987): sustainable development is development that meets the needs of the present generations without compromising the ability of future generations to meet their needs.

Better collaboration between countries and regions can improve humanity's ability to address existential global and local environmental threats. To that end, in the 2030 Agenda for Sustainable Development, countries agreed on 17 goals to help the world achieve sustainable development (SDGs). SDG 4 covers education, aiming to 'ensure inclusive and equitable quality education and promote lifelong learning opportunities for all' by 2030. Countries have agreed upon a roadmap to achieve SDG 4 and guide governments and partners on how to turn commitments into action (UNESCO, 2016).

This study focuses on SDG Target 4.7, which calls for countries to:

'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.'

Because teachers are key to achieving this target, this study examines progress from their perspective.

2.1.2 Education for sustainable development (ESD) and global citizenship education (GCED)

ESD and GCED are approaches to education that equip learners of all ages with the knowledge, skills, values, attitudes and behaviours they need to engage in the world and help build a more sustainable, just and peaceful future (UNESCO, 2015). ESD focuses on issues related to sustainable development and on ways to address them – or, in other words, ‘learning to live sustainably’. GCED aims to give learners a sense of belonging to a common human community sharing a common destiny on this planet, so as to foster critically informed and compassionate citizens who can engage in their community at local, regional and global levels. GCED has often been explained as ‘learning to live together’ in peace.

To facilitate a more accurate and detailed measurement of teachers’ perceptions and practices in ESD and GCED, this study focuses on the extent to which teachers are ready to teach four thematic sub-areas of ESD and GCED: sustainable consumption and production; climate change; human rights including gender equality; and cultural diversity and tolerance. The four thematic sub-areas are described in Box 1. Though they do not cover the full range of issues addressed in and through ESD and GCED, they focus on some of the more pressing issues facing the world typically addressed in the context of ESD and GCED.

Box 1. Four thematic areas of ESD and GCED examined in this study

Sustainable consumption and production education

is learning to understand and promote more sustainable production and consumption patterns and ways of living. Participants develop an understanding of the environmental, social and economic impacts of their production and consumption choices and learn how to translate them into actions in daily life and so to contribute to low carbon, resource-efficient, sustainable societies and economies without environmental degradation.

Climate change education is learning to understand and actively address climate change (the global phenomenon of changes in the usual climate, temperature, precipitation and wind of the planet due to human burning of fossil fuels), climate injustice (the unequal distribution of climate change effects) and global warming and its harmful effect on biodiversity.

Human rights education, including gender equality is learning about and for the responsibility of all society members to respect the human rights of all and observe and prevent human rights abuses and violations. It empowers learners to exercise their rights, as well as to support and advocate for the rights of others. It also covers the promotion of gender equality, where women and men, girls and boys have equal rights, responsibilities and opportunities.

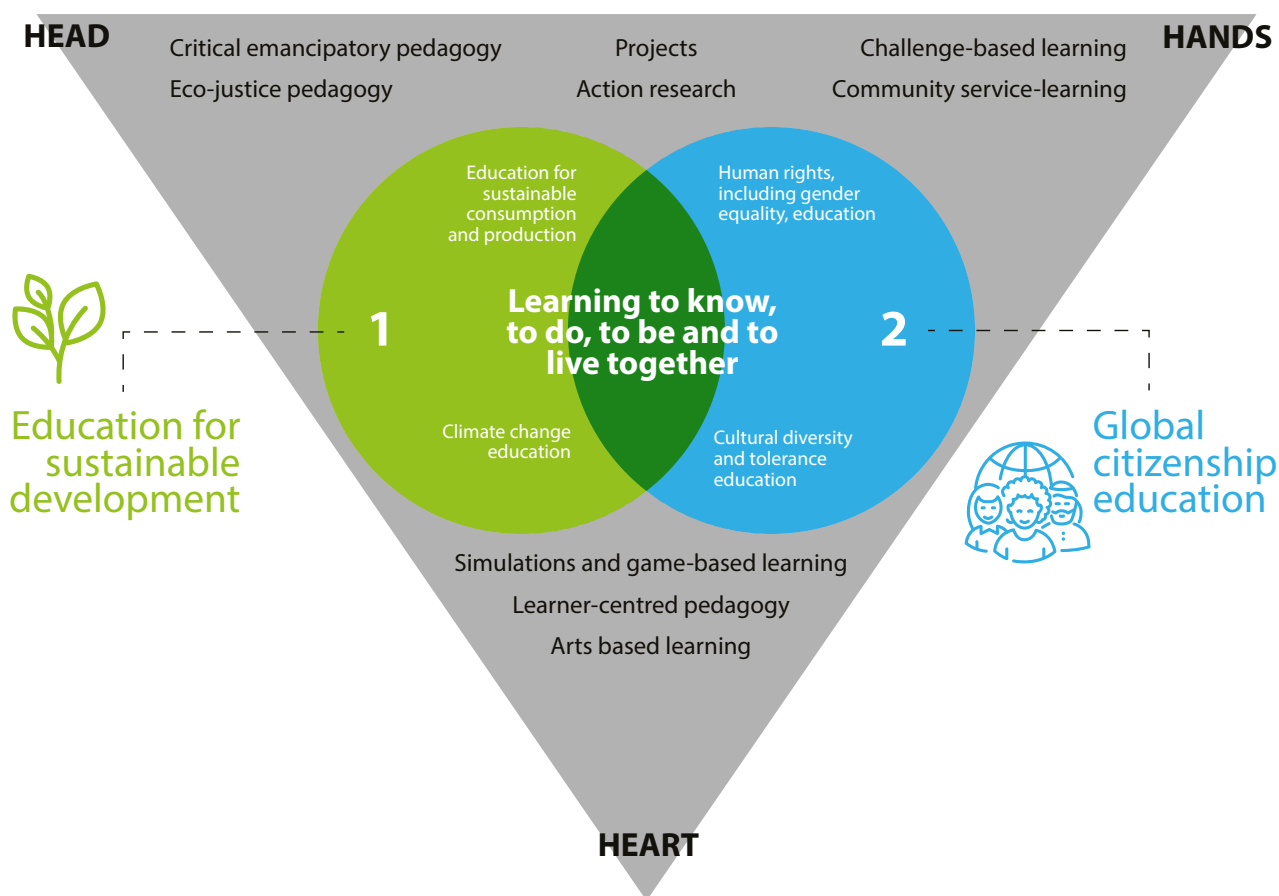
Cultural diversity and tolerance education is learning to understand, appreciate and support the rich diversity of the world’s cultures, forms of expression, world views and ways of being human through open, positive and peaceful communication that enables the learner to establish positive relationships with people of different national, ethnic, religious, social and cultural backgrounds.

2.1.3 What is teacher readiness for ESD and GCED?

Teacher readiness relates to the motivation, skills and opportunities that teachers have to teach the ESD and GCED themes effectively and to instil in students the knowledge, skills, values, attitudes and behaviours that will enable them to forge sustainable, just and peaceful societies, through individual and collective action at local and global levels. Studies demonstrate that ESD and GCED teaching is most

effective in changing students' behaviours when teachers use affective, action-oriented, student-led or collaborative approaches rather than transmissive teaching methods (Boeve-de Pauw & van Petegem, 2017). Many pedagogies and methods have been designed to actively engage students and ensure comprehensive learning. Figure 2 provides a snapshot of the pedagogical toolbox which teachers have at their disposal for teaching ESD and GCED holistically and effectively.

Figure 2. Visualization of some relevant ESD and GCED pedagogies for effective teaching



Source: Created by the Public Policy and Management Institute (PPMI Group). The triangle of the head, heart and hand as metaphors for the cognitive, behavioural and socio-emotional learning dimensions was inspired by Sipos et al. (2008), while the four dimensions at the centre refer to the Delors report (UNESCO, 1996).

Note: The positioning of pedagogies in the triangle does not imply that the pedagogies exclusively deal with one learning dimension, nor that this is an exhaustive list of pedagogies. These are good examples of what research and practice suggest for triggering learning. Ideally, learning should occur in all learning dimensions.

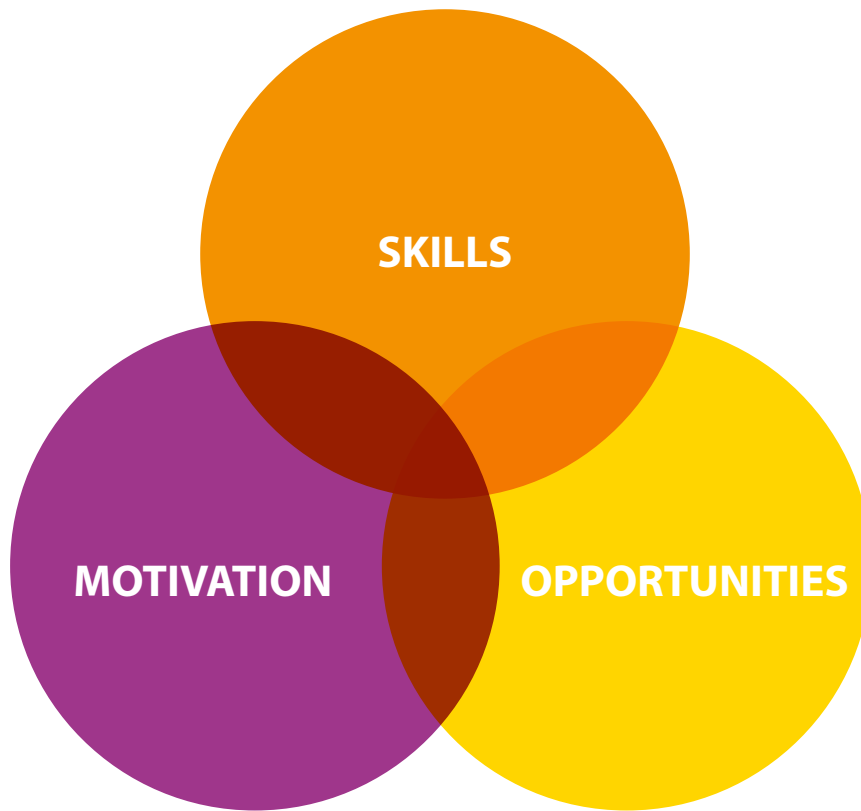
Teacher readiness is best where individual-level and system-level enabling factors intersect. These enabling factors can be broken down into three main categories:

- **Motivation** is measured by the social value teachers place on ESD and GCED themes; whether and to what extent teachers see teaching ESD and GCED as feasible and desirable; and the policy-based incentives in place favouring the teaching of ESD and GCED.
- **Skills** involve teachers' thematic, pedagogical and organizational knowledge of ESD and GCED thematic issues; teachers' ability to engage with these thematic issues in various contexts in their classrooms; and the extent to which teacher education has prepared teachers to teach and assess ESD and GCED.
- **Opportunities** are operationalized through the external support available to teachers, including access to resources, time and facilities at schools; the availability

of information and guidance; and the enablers and barriers teachers face at system (individual, classroom, school and community) and geographical (national and regional) levels.¹

Teachers are most ready to teach ESD and GCED when they are motivated, possess the necessary skills to teach ESD and GCED effectively, and are supported by appropriate opportunities (Figure 3). Downplaying any one of these elements will impact on delivery: highly motivated and skilful teachers may not teach ESD and GCED effectively if they are overworked and do not have access to necessary resources, while teachers who are not motivated will not attend professional development education when they get the chance. Therefore, education policymakers should design holistic policies for ESD and GCED to improve all elements of teacher readiness (motivation, skills and opportunities).

Figure 3. Visualization of the components of teacher readiness



Source: Created by the Public Policy and Management Institute (PPMI Group).

1. This approach is inspired by Lundstrom and Stevenson's (2002) modelling of the foundations of integrated entrepreneurship policy.

2.2 Context

Over the last 10 years, countries have included curricular content that aims to promote sustainability and global citizenship (Goren & Yemini, 2017). In 2012, 49 of 55 (89 per cent) UNESCO Member States responding to the global consultation on the 1974 Recommendation concerning Education for International Understanding, Co-operation and Peace, and Education relating to Human Rights and Fundamental Freedoms reported that at least some GCED-related themes (e.g., human rights, cultural diversity, peace studies) were incorporated in national education policies (McEvoy, 2017). Twenty-eight countries (51 per cent of respondents) reported that at least one element of ESD was part of national education policy, while 18 countries (33 per cent) reported that at least one was mandatory in curricula (McEvoy, 2017). The majority used ‘sustainable development’ language, rather than referring to specific issues such as climate change or sustainable consumption and production.

Dill (2013) describes two main approaches to GCED in classrooms around the world. The first is concerned with developing *global competences* to prepare students to compete in a globalized society and economy. The second focuses on *global consciousness*: Fostering students’ empathy, cultural sensitivity and global orientation. Ideological categorizations (Gaudelli, 2009) and categorizations that focus on the level of students’ critical engagement with neocolonialism and neoliberalism (Pashby et al., 2020) have also been developed to account for politics, power and legacies of hegemony. While GCED was previously often understood as ‘global learning’ for its own sake, applications of GCED now frequently underscore the need for social engagement on global issues such as human rights and climate change, promoting *doing* and *being* rather than simply *knowing* (Gaudelli, 2016).

ESD and GCED are context-specific and implemented differently across the world, since teaching needs to be personalized and contextualized to effectively engage teachers and learners. Culture and religion may have an impact on the approaches that work to influence learners (Yemini et al., 2019) and on whether intrinsic or external motivation is more important to ensure behaviour change (Berglund et al., 2019).

Moreover, teachers apply different approaches to GCED in accordance with their own perceptions of what matters for students’ futures, which can differ widely from that of policymakers and other teachers in their country (Dill, 2013). Historical factors driving inequalities and environmental problems are different in different places, which means that countries and regions experience different sustainable development challenges. Differences are as apparent within countries as between, which has caused scholars to question whether the nation state is the right unit of analysis for researching the challenges teachers face in teaching ESD and GCED.

Structural factors and political prioritization account for some of the different ways in which countries approach the ESD and GCED thematic areas. For example, in locations with high concentrations of immigrants or refugees, GCED is often used as a peacebuilding tool and a framework for dialogue, living together and social cohesion (Goren & Yemini, 2017). In big economies (e.g., China and the United States of America), GCED has focused on strengthening individual skills necessary for competing in the global economy (Goren & Yemini, 2017). More affluent communities can provide teachers with more resources for implementing ESD but are not necessarily more successful in impacting students’ values and behaviours, especially on energy consumption and consumerism (Berglund et al., 2019).

Despite growing international recognition of the importance of ESD and GCED, research has pointed out a lack of measurable differences in behaviours among students, raising questions about the extent to which theory is informing practice in classrooms (Barrett et al., 2007; Arbuthnott, 2009). Interpreting how ESD and GCED are practised is complicated by the fact that content in curricula that thematically relates to ESD and GCED is not always labelled as ESD and GCED, as well as because there are very few studies focusing on teachers’ practice. Introducing ESD and GCED as explicit subjects or topics in the curricula may be challenging due to overcrowded curricula, the potentially contentious nature of the topics, the lack of funding for curriculum reform and the challenges linked to assessment. The survey, therefore, also asked questions about assessment at many levels.

Given this context, this study makes a few assumptions:

- Only teaching *about* sustainable development and global citizenship issues will not foster the attitudes, values and behaviours necessary to help students become responsible and proactive global citizens. ESD and GCED require learning to take place along **three complementary and intertwined dimensions of learning** (e.g., UNESCO, 2017, 2020):



Cognitive learning covers knowledge, understanding and critical thinking about global, regional, national and local issues, the interconnectedness and interdependence of different countries and populations, and the social, economic and environmental aspects of issues.



Social and emotional learning builds the emotional awareness and social skills that children and young people need to relate to others in positive and respectful ways. This includes the promotion of a sense of belonging to a common humanity, sharing rights, responsibilities and a common destiny.



Behavioural learning concerns the ability to act effectively and responsibly at local, national and global levels for a peaceful and sustainable world.

- **The whole-school approach** – understood as the inclusion of ESD and GCED in all aspects of school life, operations and relations with the surrounding community (Saha & Print, 2010) – can be particularly impactful in fostering the knowledge, skills and attitudes learners need. UNESCO's work on the road to transformation for sustainable development (UNESCO, 2020), the four spheres of learning (about, in, through and for) and the four pillars of learning (to know, to do, to be and to live together) (UNESCO, 1996) can help to guide this approach.
- **Teacher readiness** to teach sustainable development and global citizenship issues is affected by various factors at individual, classroom, school and system levels that need to be addressed by the education community and policymakers in an integrated way.

2.3 Methodology

The study consisted of a literature review and an online survey, which targeted primary, lower and upper secondary teaching staff across the world. The literature review aimed to provide a better understanding of the conceptualization of ESD and GCED across different regions in the world, whereas the survey's objective was to measure how ready teachers feel to implement ESD and GCED. The survey was designed to explore the following research questions (Table 1).

Table 1. Research questions

1	How motivated and interested are teachers in the different ESD and GCED themes?
2	What are the perceptions of teachers towards systemic factors that facilitate or impinge on their ability to mainstream different ESD and GCED themes?
3	What is the view of teachers on how the school leadership, whole-school strategies or school culture support them or not in educational innovation related to the implementation of different ESD and GCED themes?
4	What are the current practices teachers use in their classrooms to integrate different ESD and GCED themes?
5	What are the views of teachers on how teacher education has prepared them for teaching the different ESD and GCED themes?
6	What are teachers' views on how their situation can be improved to expand teaching on the different ESD and GCED themes?
7	How do the understanding, opinions and practices of teachers differ based on teacher characteristics?

Source: Created by the Public Policy and Management Institute (PPMI Group).

To address these questions, teachers were asked about their perceptions of their capacities (motivation and competences), their practices, and the extent to which they are empowered by their teaching conditions, system and governance to teach four selected thematic areas of ESD/GCED (sustainable consumption and production, climate change, human rights including gender equality, and cultural diversity and tolerance).

The survey ran from 1 March to 25 April 2021 and was available in 12 languages: Arabic, Chinese, English, French, Indonesian, Italian, Japanese, Kiswahili, Korean, Portuguese, Russian and Spanish. These languages were chosen in order to try to maximize response rates across the world. UNESCO and EI acted as multipliers and provided assistance with the dissemination of the

survey across their member countries and organizations. Links to the online survey were also available on various partner websites and were promoted on social media. In total, the survey gathered 58,280 complete responses.

The views presented in this report do not reflect a representative sample of teachers across the world. Responses were received from 144 countries and territories. However, two countries – Mexico and Ukraine – have disproportionately large samples, with 43,206 and 9,220 respondents, respectively, making up almost 90 per cent of all responses gathered (Table 2). As a result, there were substantial differences in response rates between regions. Teachers from Latin America and the Caribbean accounted for 77 per cent of all respondents and those from Europe and Northern America a further 17 per cent.

Table 2. Respondents by countries and regions

Top 10 countries	Number of respondents	Percentage of all respondents
Mexico	43,206	73.9
Ukraine	9,220	15.8
Saudi Arabia	1,641	2.8
Kuwait	948	1.6
Nicaragua	917	1.6
Brazil	360	0.6
South Africa	358	0.6
Peru	179	0.3
Armenia	119	0.2
Philippines	87	0.2
SDG ¹ regions		
Central and Southern Asia	88	0.2
Eastern and South-Eastern Asia	332	0.6
Europe and Northern America	9,641	16.5
Latin America and the Caribbean	44,792	76.9
Northern Africa and Western Asia	2,888	5.0
Oceania	45	0.1
Sub-Saharan Africa	494	0.8

Data Source: Global teacher survey (2021). (n=58,280).

1. United Nations Statistics Division, <https://unstats.un.org/sdgs/indicators/regional-groups/>

To address the imbalance in response rates, the survey results were weighted based on available data on the teacher population worldwide. This has helped to reduce the over-representation of responses from countries such as Mexico and Ukraine.

Survey respondents were self-selected, which means they were more likely to have a pre-existing interest in ESD and GCED topics and to be less representative of teachers in general. Furthermore, teachers with little or no access to computers or the internet will mostly have been unable to participate in the survey.

The findings should, therefore, be understood as being based on the responses of teachers who participated in the survey. The term ‘teachers’ used to present quantitative findings hereafter in this report should be read as ‘teachers who responded to the survey’.

Despite these limitations, the study provides a unique and valuable insight into teachers’ perceptions of their readiness to teach ESD and GCED, the support they receive and the resources they need.

Table 3 provides a short overview of some of the key background characteristics of respondents.

Table 3. Respondents’ characteristics

	Characteristic	Number of respondents	Percentage
Gender	Female	35,801	61
	Male	22,461	39
	Other	6	0
	I prefer not to answer	11	0
Education level taught	Primary	26,296	45
	Lower secondary	18,137	31
	Upper secondary	13,847	24
Years of teaching experience	Less than 1 year	1,020	2
	1–5 years	7,244	12
	6–10 years	9,791	17
	11–20 years	19,098	33
	21–30 years	14,098	24
	More than 30 years	7,029	12
Location	Urban (town or city with more than 10,000 people)	41,723	72
	Rural (town or settlement with less than 10,000 people)	16,557	28

Data Source: Global teacher survey (2021). (n=58,280)



हिन्दी वर्णमाला चार्ट

अ	आ	इ	ई	उ	ऊ
ए	ऐ	ओ	औ	क	ख
ग	घ	ङ	च	छ	ज
झ	ञ	ट	ठ	ड	ढ
ण	त	थ	द	ध	न
प	फ	ब	भ	म	य
र	ल	व	श	ष	ह
ळ	ळ	ळ	ळ	ळ	ळ

MEDICAL YEAR

1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
0	20	30	40	50	60	70	80	90	100

ANIMALS

स्वच्छता दीप केन्द्र

कनफडा मोहल्ला
जिला-हापुड (उ.प्र.)

स्वच्छता डेप्युटी सहायक सचिव

753500

3. Overall findings

3.1 Motivation and awareness: Do teachers want to teach ESD and GCED?

To achieve the transformative potential of ESD and GCED, all three learning dimensions – cognitive, socio-emotional, and behavioural – need to be integrated across education levels and, within each level, across relevant subject areas (UNESCO, 2020). Teachers need to feel confident and prepared to teach all three dimensions in a context-specific and age-sensitive way. UNESCO (2020) suggests that disproportionately focusing on cognitive learning or addressing all three dimensions only at some education levels may undermine students’ development of a holistic set of skills, attitudes and behaviours promoting sustainability. However, the most recent review by UNESCO (2021) indicates that, while students often learn about climate change and other environmental issues, the development of the socio-emotional and behavioural competences needed to take action on environmental and climate issues is less often targeted and prioritized.

To ensure that ESD and GCED are comprehensively integrated in school education and mainstreamed

across education policy, teachers must be aware of the importance of teaching and learning ESD and GCED holistically and adequately motivated to do so. The global teacher survey results show that teachers are generally aware of and committed to teaching ESD and GCED themes, but this differs depending on teacher background and the specific dimensions of ESD and GCED. Lack of motivation can act as a barrier to teaching ESD and GCED, as noted by a male upper secondary school teacher from Australia, who commented that effectively assessing ESD and GCED would require: *‘Me caring in the slightest about sustainable development or global citizenship.’*

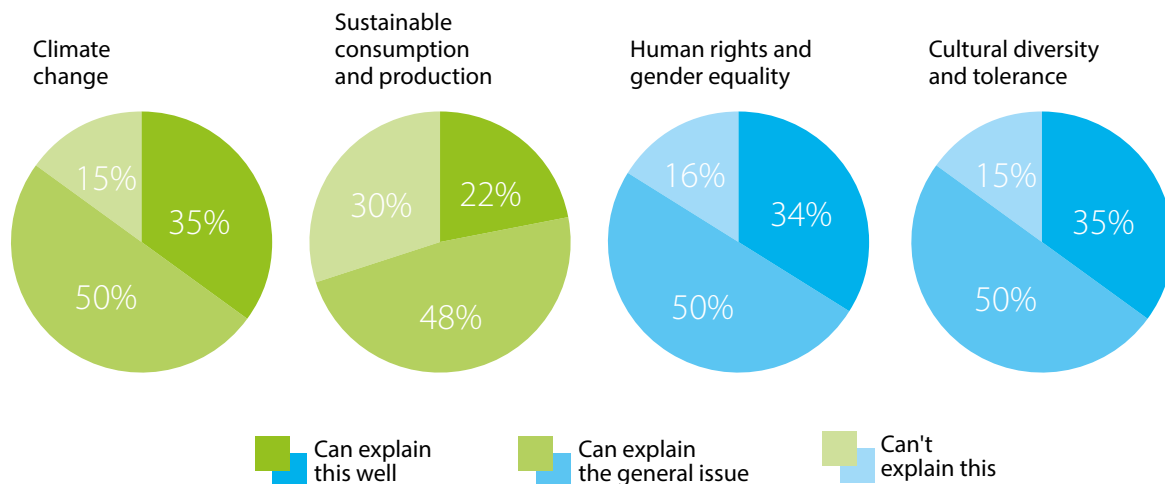


FINDING #1:

Generally, respondents feel well-informed about the four ESD and GCED themes. However, teachers feel significantly less well-informed and confident about teaching sustainable consumption and production.

Most respondents feel informed about ESD and GCED themes, but only about one-third of teachers feel they can explain these issues well to their students. Their degree of comfort differs by issue (Figure 4).

Figure 4. Familiarity with different ESD and GCED topics (percentage of respondents)



Data Source: Global teacher survey (2021). (n=58,280).

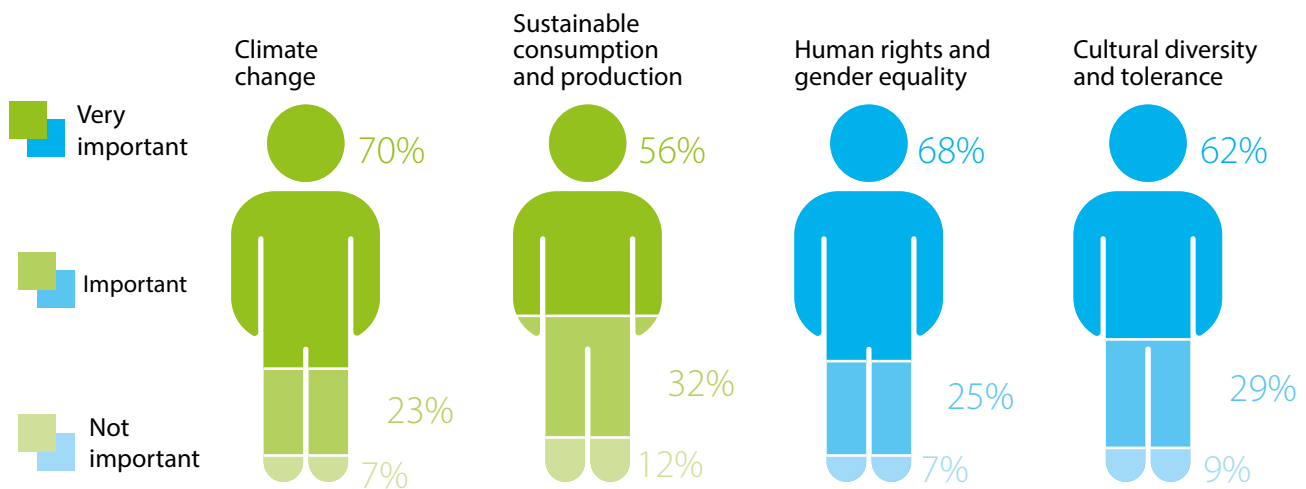
Teachers are generally aware of and confident in teaching about the severity of climate change (37 per cent can explain it well). However, teachers become slightly less confident when it comes to explaining the effect of climate change on their own region or locality (only 32 per cent report they can explain it well). Teachers also report high levels of awareness about issues related to global citizenship. They feel more confident in teaching cultural diversity (39 per cent can explain it well) and gender equality (36 per cent) than talking about human rights violations (32 per cent are familiar with the topic and can explain it well) and the history of racism and discrimination (31 per cent).

Themes related to the impact of consumerism on sustainability and corporate social responsibility

are less familiar to teachers, and teachers feel less confident about explaining them to their students. Seventy-seven per cent of respondents feel they can explain the impact of consumerism on sustainability, while 63 per cent of respondents feel they can explain corporate social responsibility. Eighteen per cent and 29 per cent, respectively, cannot explain the issue.

Fewer respondents consider it very important to cover sustainable consumption and production topics: only 55 per cent (on average), as compared to 70 per cent who agree that the severity of climate change and its effects are very important to teach (Figure 5). It seems possible to suppose that the less aware teachers are about the issue, the less important they think it is to integrate into their teaching.

Figure 5. Importance of teaching ESD and GCED topics (percentage of respondents)



Data Source: Global teacher survey (2021). (n=58,280).

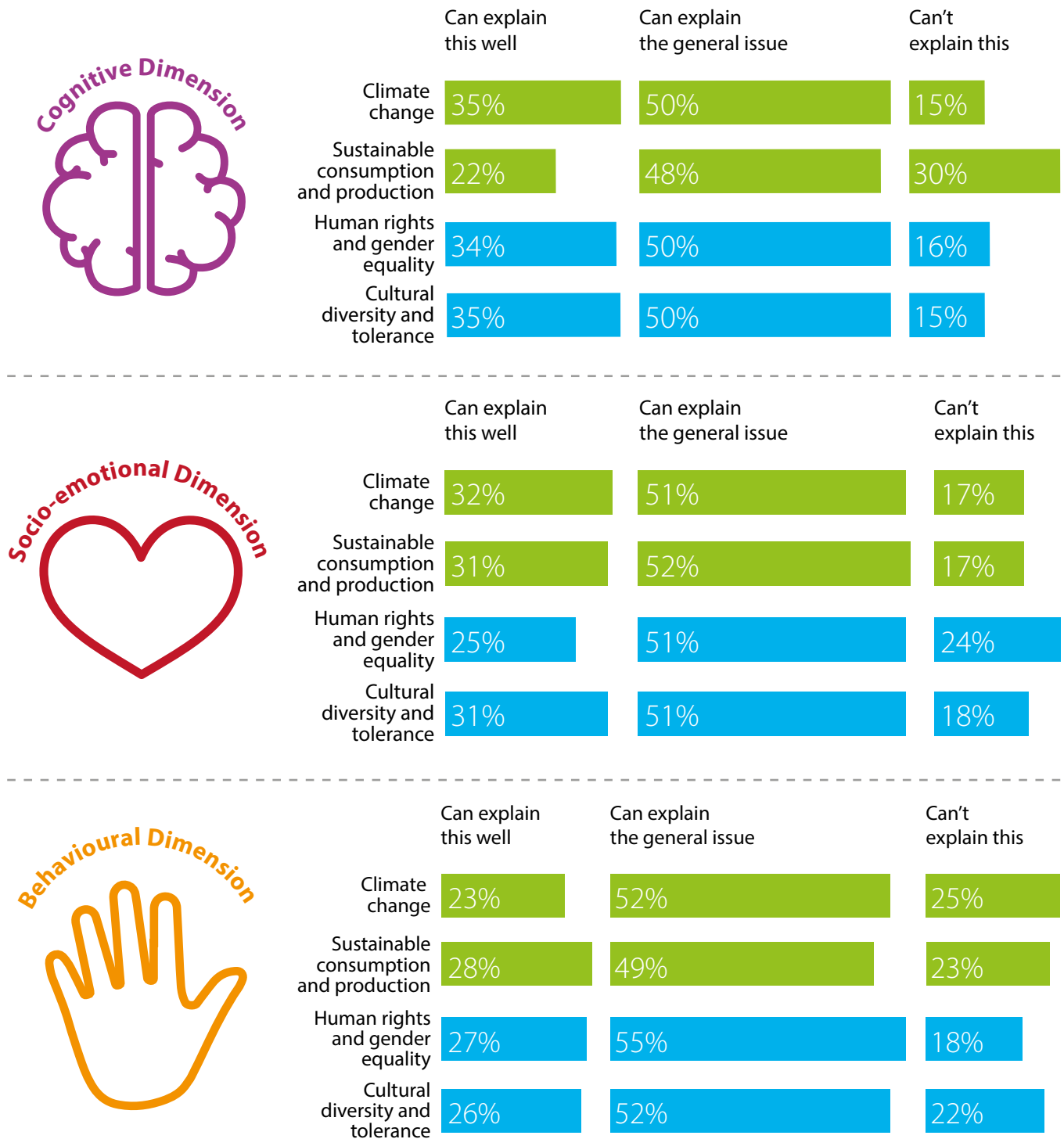
**FINDING #2:**

Teachers feel more confident teaching cognitive skills, and less confident and knowledgeable about behavioural learning and socio-emotional perspectives, especially in ESD.

ESD and GCED aim to develop competences that empower individuals to reflect on their own actions, taking into account their current and future social, cultural, economic and environmental impacts from a local and a global perspective, as well as to acknowledge and challenge existing and historical power relations and inequalities. To be able to do that, individuals need not just knowledge but also skills to understand, analyse and act upon these issues. Environmental issues are complex and spread across different domains, so people need to learn to think in a systematic way. They need good analytical skills and critical thinking to be able to assess the current state, past developments and future trajectories of the environment, as well as to identify false information. To visualize a sustainable future and be able to adjust that image over time, anticipatory or future-thinking competence is needed. Finally, learners need the skills to initiate action, to take leadership roles in promoting sustainability, to engage, cooperate and communicate effectively with others, and to enable others to act – which all calls for strong interpersonal competences (see e.g., Brundiens et al., 2020).

The survey data show, however, that teachers need to pay more attention to the socio-emotional and behavioural learning dimensions of ESD and GCED. Few teachers feel well-informed and confident in teaching socio-emotional skills compared to the knowledge dimension. On average, more than one-third of teachers reported being able to teach the cognitive dimensions of climate change, cultural diversity and tolerance, and human rights and gender equality well, compared with only about one-quarter of teachers for the behavioural dimensions (Figure 6). Sustainable consumption and production was an exception: teachers reported being most familiar with teaching the socio-emotional dimensions (slightly less than one-third) and least familiar with teaching the cognitive dimension (only about one-fifth).

Figure 6. Familiarity with cognitive, socio-emotional and behavioural dimensions of ESD and GCED topics (percentage of respondents)



Data Source: Global teacher survey (2021). (n=58,280).

Similarly, a significantly lower share of respondents feels well-informed and confident in explaining the kind of actions (behavioural dimension) needed to address global issues related to ESD and GCED. For instance, only 25 per cent of respondents feel that they could explain in detail how to prepare for natural disasters and 22 per cent how to reduce one's carbon footprint. Interestingly, a high share of teachers reported being able to teach and explain how to live sustainably (41 per cent); however, this may be linked to a narrow understanding of sustainable behaviour as waste management and recycling. Educational communities need to be helped to go beyond recycling in teaching ways to ensure environmental sustainability and should develop holistic visions and policies aimed at enhancing agency and action towards sustainable and inclusive communities.

Teachers reported feeling more positive and confident about promoting actions and behaviours related to the protection of human rights and challenging gender stereotypes – but nevertheless, fewer teachers feel confident in teaching behaviours compared to just providing information about them. Even so, most teachers believe that all these behaviours and competences are important to teach.

“As teachers we need to help our students adopt behaviours that allow them to lead healthy lives. ... We need to teach how to take care of the environment with concrete actions beyond the school.”

– A teacher from Mexico

Teachers at secondary level feel more confident and informed about integrating all three learning dimensions into their instructional practices than do teachers in primary schools, a finding that is in line with other studies (see e.g., UNESCO, 2021a). This may be because teachers at secondary level have more specialized thematic knowledge, as well as a greater number of targeted training opportunities available to them (Section 3.3.). Primary school teachers are much more likely than secondary school teachers to

report their belief in the urgency and importance of teaching ESD and GCED, but at the same time feel less confident in doing it.

Respondents are, in general, aware of the importance of developing key transversal skills associated with fostering sustainability and responsible citizenship. On average, 70–75 per cent of respondents think it is very important to develop critical thinking, problem-solving, responsible decision-making, cooperation and collaboration, communication, creativity and empathy. Skills such as media information literacy, scientific literacy, anticipation, emotional regulation and compassion were of a lower priority among respondents, but the majority of respondents (50–60 per cent) indicated that these are also important skills to teach in relation to sustainable development and global citizenship.

“It is important to have a critical mind and be able to sort through digital information to seek out information on a given subject and communicate in writing or orally to synthesize intersecting information.” – A teacher from France



FINDING #3:

Teachers are interested in learning about ESD and GCED topics and in developing curriculum materials to teach these topics.

Eighty-one per cent of respondents want to continue learning about ESD and GCED topics, which indicates an appetite for learning that is currently not being met. Teachers express a desire to engage in related professional development opportunities. Though many acknowledge that such opportunities are available, few have actually engaged in them. Twenty-eight per cent of respondents reported engaging in continuous professional development on corporate social responsibility (lowest) and 41 per cent on culturally responsive teaching (highest). However, between 51 per cent (on corporate social responsibility)

and 71 per cent (on gender issues) said that learning opportunities were available in ESD and GCED themes. The discrepancy between teachers' self-reported desire to learn more and their participation in learning opportunities may indicate that teachers did not have access to professional development in the past but that now it is becoming more available, or it may show that although professional development in ESD and GCED is available, teachers have not yet taken advantage of those opportunities. If the latter, then factors other than lack of motivation might be at play, such as costs, access or lack of time or incentives for engaging in these learning activities, confounding teachers' interest in pursuing professional development on these topics (see Section 3.3).

Relatedly, teachers report substantial interest in creating curriculum materials for ESD and GCED, with 49 per cent indicating that they do not currently engage in the development of teaching materials but would like to do so and 51 per cent indicating that they do not currently develop curricula for their disciplines in ESD and GCED but would like to do so. Teachers across regions and across the experience cohorts surveyed indicated interest in these topics and a willingness to continue learning and developing related curricular materials to enhance their teaching of ESD and GCED.

report greater confidence and awareness about the importance of integrating such issues into classroom practices.

Male teachers are slightly more likely to report feeling confident and capable in explaining all four themes in relation to the cognitive, socio-emotional and behavioural learning dimensions (Figure 7). Female teachers are slightly more likely to indicate that most knowledge areas and skills are very important to integrate into teaching but are slightly less confident than men in doing so. However, care should be taken in analysing this finding, since high confidence levels do not necessarily result in good teaching practices or effective teaching methods. For instance, when asked about personal practices and actions, fewer teachers reported that they themselves engage in practices related to sustainability and global citizenship, even if they believed that the issues are generally important (e.g., only 38 per cent actively talk about and promote sustainable lifestyles and only 33 per cent of respondents read about the history of different ethnic groups in their country). So, it cannot be assumed that teachers who believe these topics are important actually teach them.

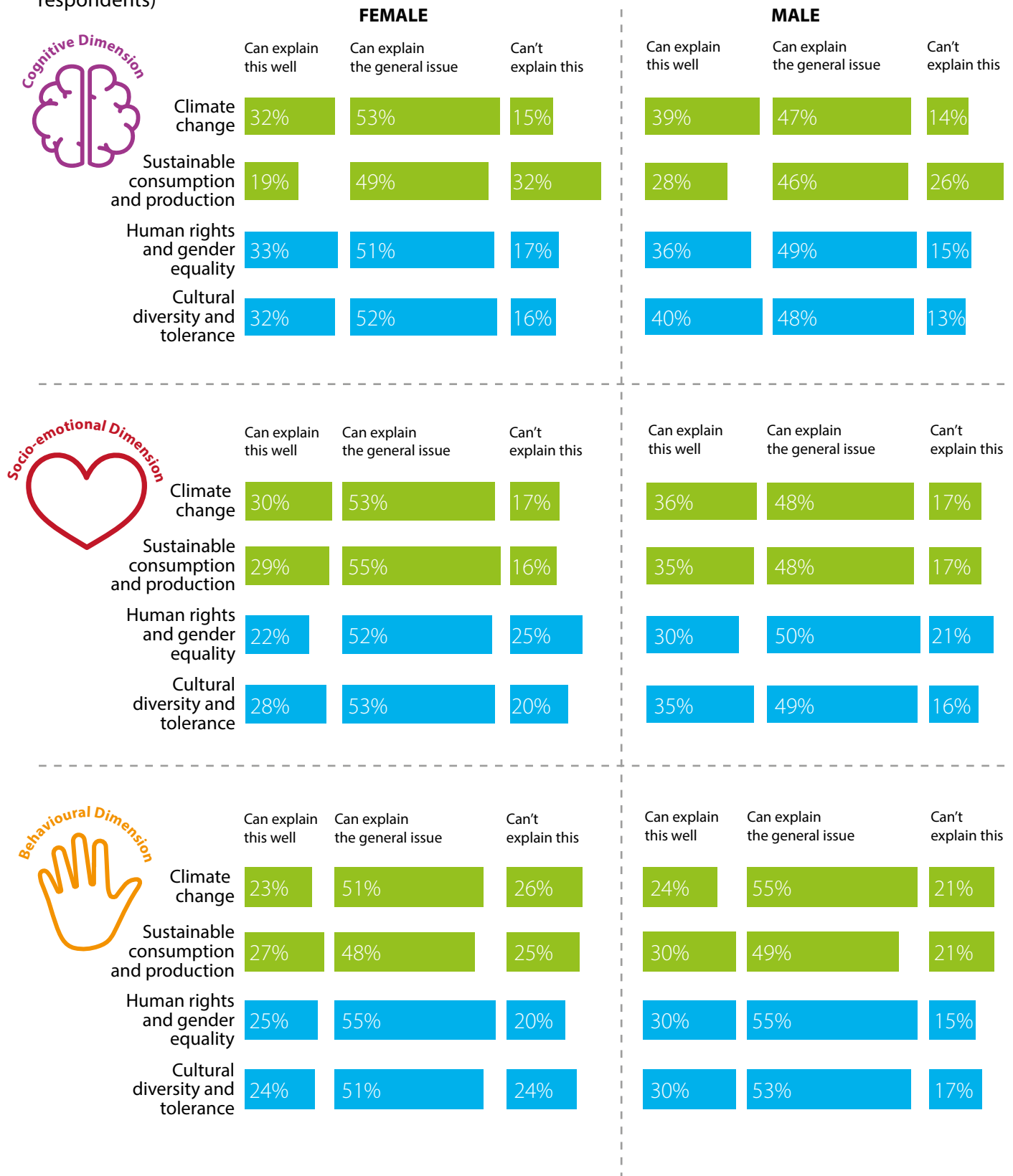


FINDING #4:

Awareness of the importance and urgency of teaching ESD and GCED issues increases with age and experience, but awareness does not necessarily translate into increased teaching in practice.

The share of those who think that global issues related to ESD and GCED are not important decreases with age. The same is true with regard to years of experience – the more experienced and the more educated the teacher is, the less likely they are to have negative beliefs about global issues. Likewise, those with more experience and education

Figure 7. Familiarity with different knowledge areas within dimensions of learning, by sex (percentage of respondents)



Data Source: Global teacher survey (2021). (n=58,280).

3.2 Skills: Are teachers able to teach ESD and GCED?

To shape learners' awareness, skills and behaviours, teachers need pedagogical know-how that they can use in the classroom, at school, in collaboration with students and the overall learning community, through teaching and potentially assessment (UNESCO, 2020). Making the transition from *knowing* to *doing* on sustainability and global citizenship issues is challenging and does not rely solely on motivation or interest, nor does it automatically follow from acquiring knowledge about the importance of the issue (Kollmuss & Agyeman, 2002). This section, therefore, analyses teachers' skills in teaching ESD and GCED, building on evidence of their classroom practices and education.

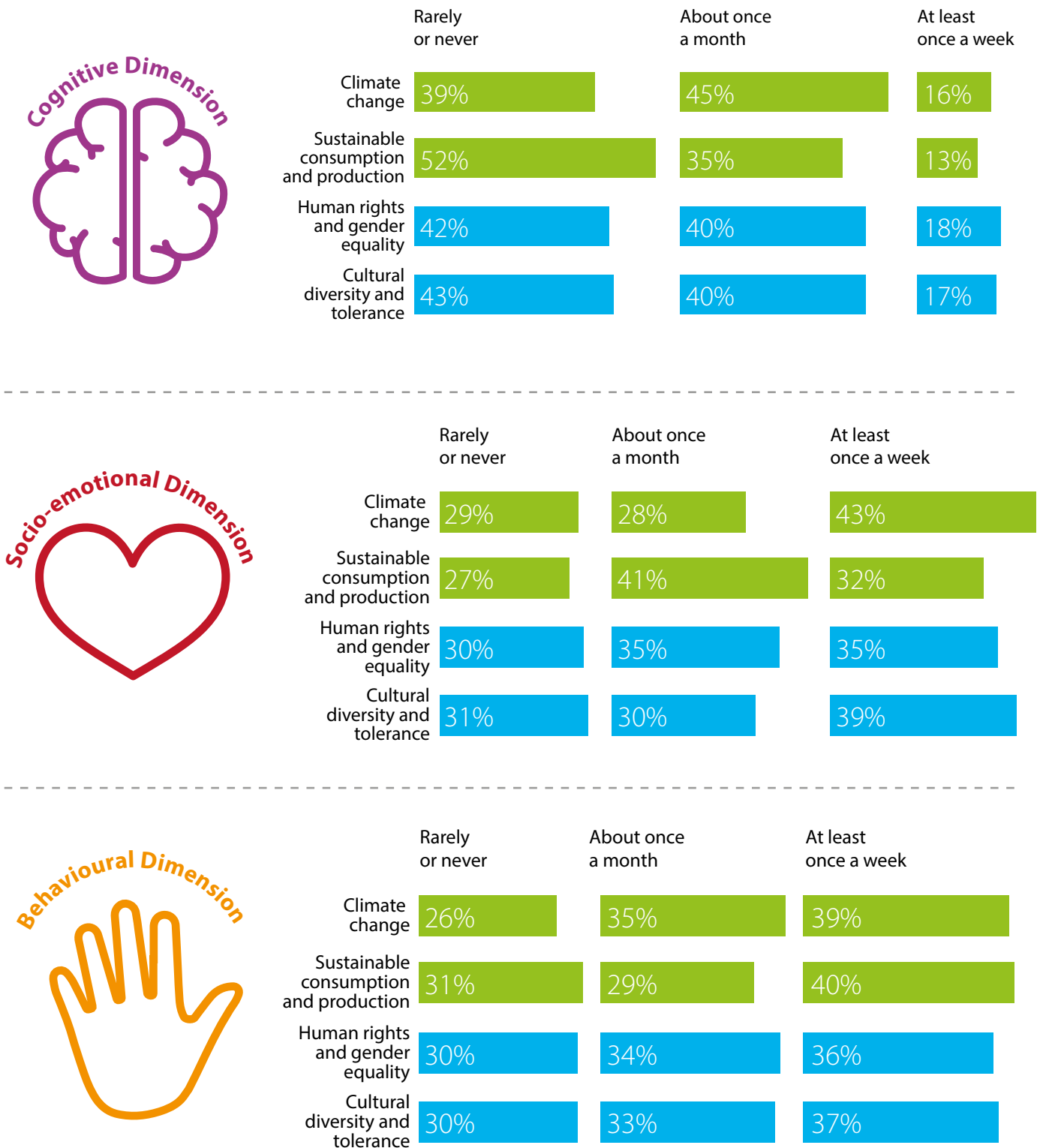


FINDING #5:

Sustainable consumption and production is the least commonly taught theme, mainly because teachers do not have the necessary knowledge and skills to teach it.

Respondents are least likely to teach sustainable consumption and production, at least in the cognitive dimension of learning. Approximately 50 per cent of respondents rarely or never teach about corporate social responsibility or the impact of consumerism on sustainability, as compared to about 40 per cent of teachers who rarely or never teach about the other three themes. Differences are much less marked between ESD and GCED themes in the other two dimensions of learning, where around 30 per cent of teachers report never or rarely teaching socio-emotional or behavioural aspects (Figure 8).

Figure 8. Frequency of teaching different learning dimensions of ESD and GCED topics (percentage of respondents)

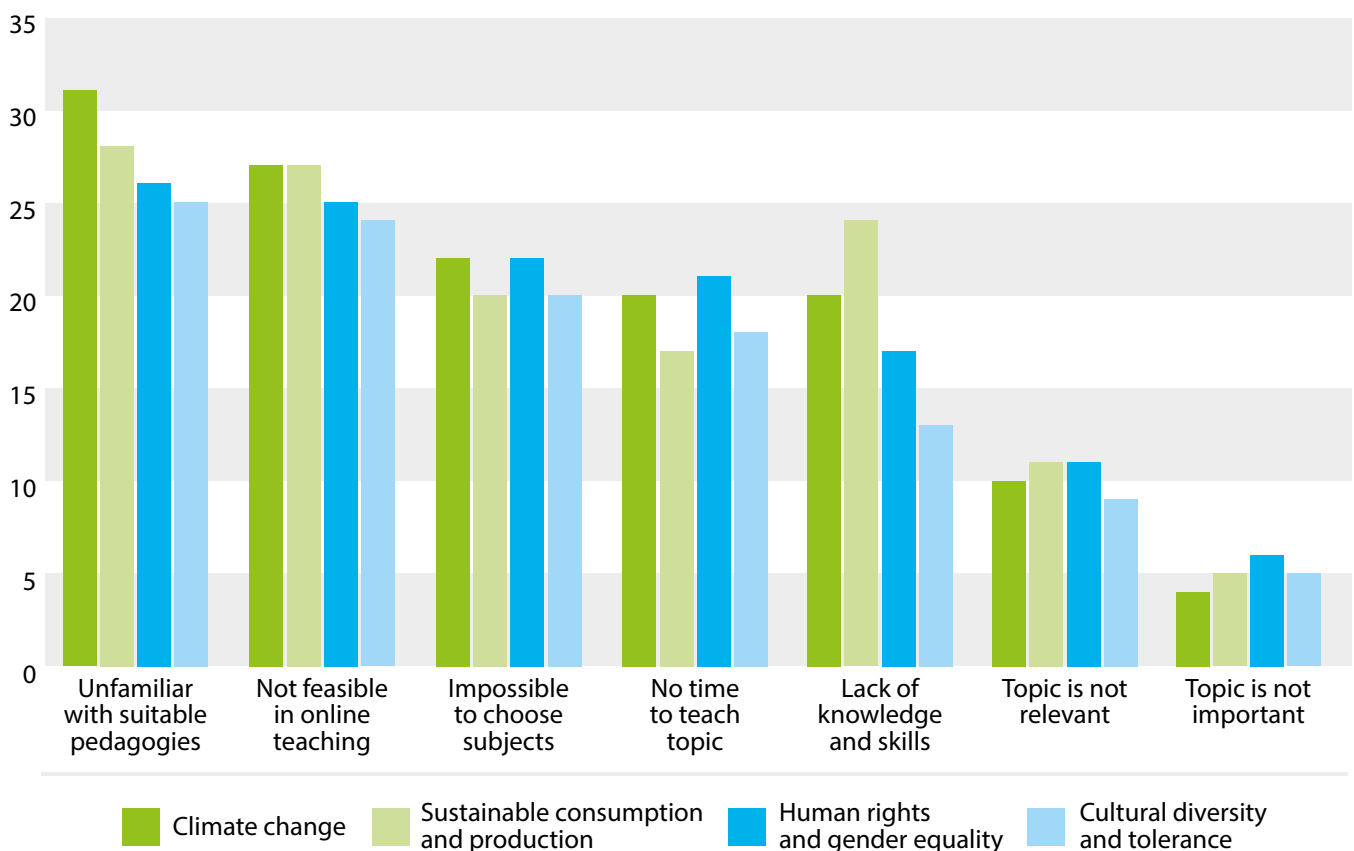


Data Source: Global teacher survey (2021). (n=58,280).

Around half of respondents indicated that they face challenges in teaching each of the four themes of ESD and GCED, ranging from 56 per cent for sustainable consumption and production to 46 per cent for cultural diversity and tolerance. The most common reason (for between 25 and 31 per cent of respondents) was not being familiar with suitable pedagogies (Figure 9). Between 24 and 27 per cent of respondents indicated that the pedagogical

approaches they would like to use to teach ESD and GCED topics are not feasible to apply in online or distance teaching related to school closures during the COVID-19 pandemic. Nearly 24 per cent of respondents indicated that they do not have the necessary knowledge and skills to teach sustainable consumption and production within their classrooms compared with 13 per cent for cultural diversity and tolerance.

Figure 9. Challenges in teaching ESD and GCED topics (percentage of respondents reporting facing challenges)



Data Source: Global teacher survey (2021). (Climate change n= 28,004, Sustainable consumption and production n=30,665, Human rights and gender equality n=27,229, Cultural diversity and tolerance n=26,610).



FINDING #6:

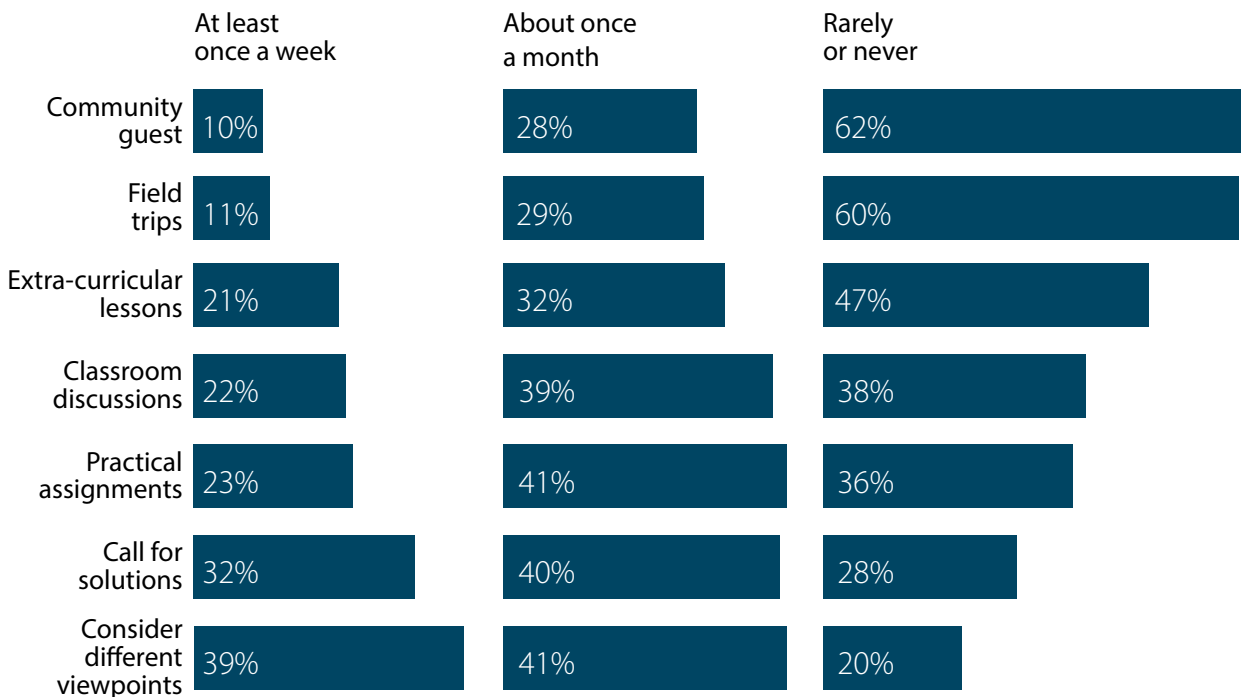
Teaching methods that require fewer tangible resources from teachers tend to be more commonly used.

Teachers are less likely to use methods that require tangible resources such as time and funding (Figure 10). Respondents used teaching methods that involved providing encouragement or giving assignments more often than those that required organizing extra-curricular lessons, inviting a community member to lead a lesson, or taking students outside the school vicinity. These activities consume both time and financial resources, to which

teachers tend to have limited access. Around 60 per cent of respondents indicated that they never or rarely take their class on a field trip or invite community members to the school. Only about 10 per cent engage in either activity on a regular basis (i.e., at least once a week).

Two factors need to be taken into account when interpreting these findings. First, the COVID-19 pandemic significantly affected all education sectors and resulted in the global teacher-student population being isolated and confined in their homes due to lockdowns and social distancing practices (Bari et al., 2021). Second, teachers in different regions and countries have very different levels of access to resources, since total expenditure per student per year differs widely among countries and among schools (OECD, 2020).

Figure 10. Frequency of use of different activities when teaching sustainable development and global citizenship (percentage of respondents)



Data Source: Global teacher survey (2021). (n=58,280).

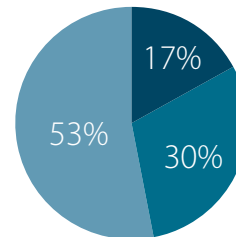
**FINDING #7:****Teachers collaborate on approaches and projects more than on standards.**

Respondents most often cooperate within internal networks made up of other teachers within their schools, students and parents (Figure 11). Around 30 per cent of respondents collaborate with students, parents and other teachers in their school or exchange teaching materials and instructional approaches with colleagues at least once a week. A similar proportion work with school leaders to develop school policy. Only 20 per cent discuss the inclusion of global issues across different disciplines with other teachers on a weekly basis. However, across all regions, more than half of all respondents never or rarely work with other teachers to ensure common standards on ESD and GCED and only one-sixth do this weekly.

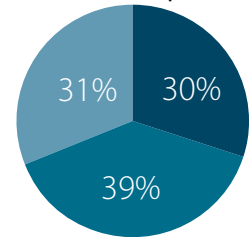
Figure 11. Frequency of collaborative practices taking place at school level (percentage of respondents)

■ At least once a week ■ About once a month
■ Rarely or never

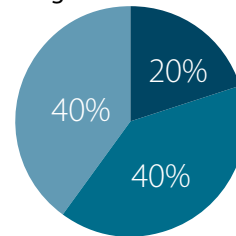
Common standards between teachers



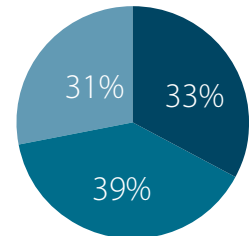
Collaborate with students and parents



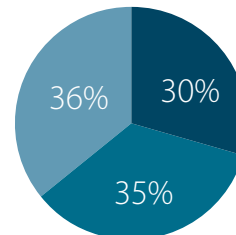
Exchange with teachers on global issues



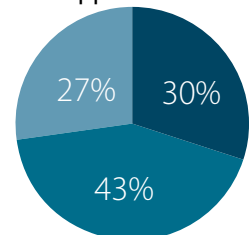
Joint projects with other schools



Develop school policies with school leaders



Exchange of materials and approaches



Data Source: Global teacher survey (2021). (n=58,280).

**FINDING #8:**

Nearly 40 per cent of respondents face significant challenges in assessing students' ability to act in line with ESD and GCED principles.

Including ESD and GCED in national assessment systems is one way to ensure learning is measured and to evaluate the effectiveness of teaching methods (UNESCO, 2018b). However, research on ESD and GCED is inconclusive on the extent to which assessment, especially test-based and standardized assessment, accurately measures ESD- and GCED-related learning outcomes or is beneficial for advancing effective ESD and GCED. Since standardized testing often focuses on content knowledge, it may contribute to further advancing a knowledge-based focus in teaching ESD and GCED.

Echoing this research, respondents indicated that assessing students' learning outcomes in ESD and GCED topics was generally more challenging than teaching the topics. Some teachers pointed out that assessing skills is more challenging than assessing knowledge:

“ Assessing knowledge on these topics is not difficult; we can have them write essays or participate in oral discussions. It is more difficult to assess if they have really acquired the life skills related to these topics. Have they acquired the necessary skills to adopt habits in their lives?” – A teacher from Ecuador

“ I believe that a clear and straightforward framework of skills that relate to global citizenship would be helpful so that I could integrate them or consider them in my evaluations.”
– A teacher from Brazil

**FINDING #9:**

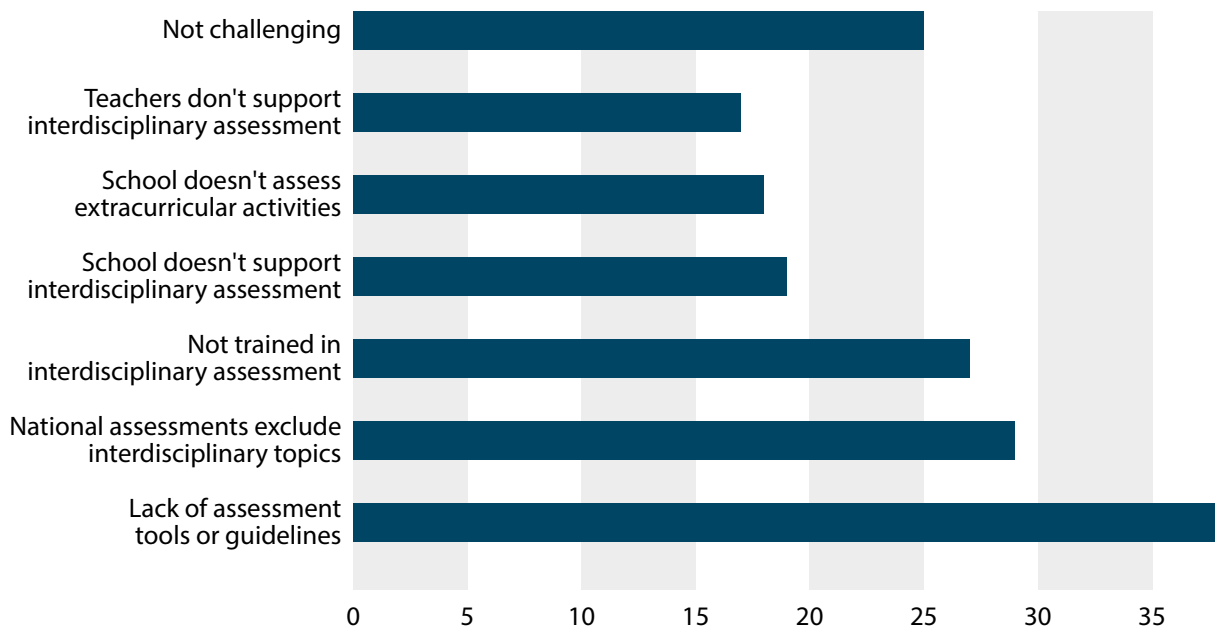
More than one-third of respondents do not have tools or guidelines for assessing interdisciplinary topics.

ESD and GCED are often hands-on, taught in an interdisciplinary manner and provided in close collaboration with many stakeholders. This makes it hard to apply regular assessment methodologies (Yarime & Tanaka, 2012). Designing tools that are more flexible, authentic and open-ended is costly, and these tools require teachers to have high assessment competence in order to interpret the results (Dumčius et al., 2020).

More than one-third of respondents indicated that they face challenges when assessing interdisciplinary topics. The most common issue was not having the necessary assessment tools or guidelines on how to assess interdisciplinary topics (Figure 12). When asked what incentives, initiatives and policy are needed for teachers to teach ESD and GCED, some teachers commented on the need for support and training for interdisciplinary teaching:

“ I myself feel very confident in teaching climate change but I would applaud more regulated directives of interdisciplinary teaching about this.”
– A teacher from Sweden

“ More interdisciplinary approaches, courses for teachers and teacher training, involvement from the Ministry and examination board [are needed].”
– A teacher from Trinidad and Tobago

Figure 12. Challenges faced when assessing interdisciplinary topics (percentage of respondents)

Data Source: Global teacher survey (2021). (n=58,280).



FINDING #10:

Teachers are going beyond traditional assessment methods in ESD and GCED.

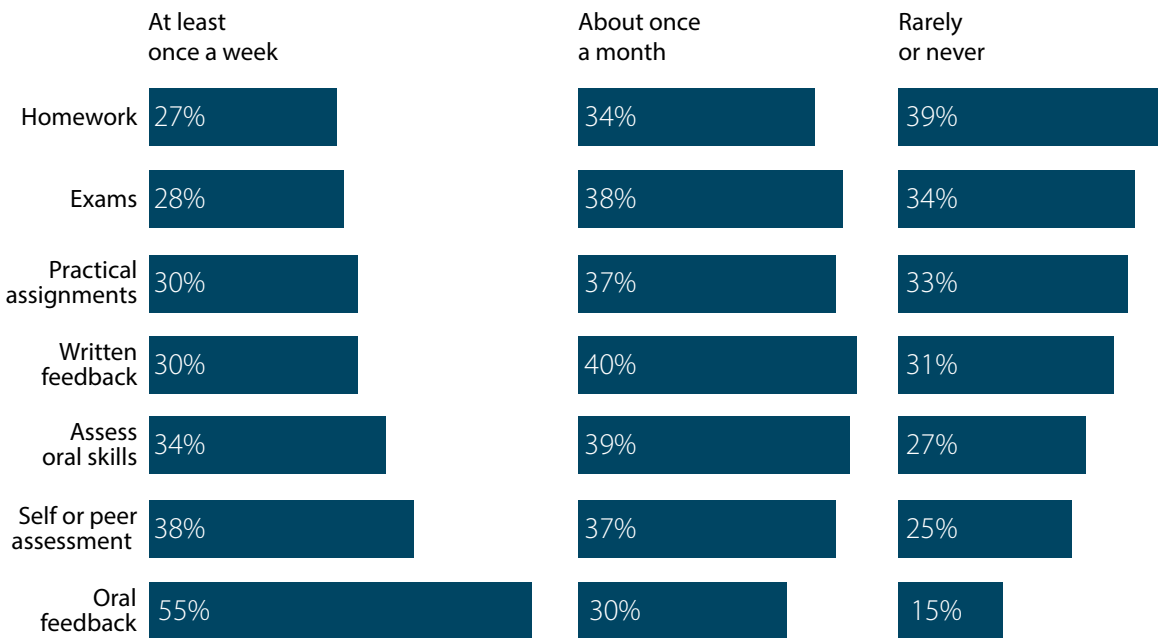
Research indicates that teachers are using a broad mix of approaches in assessment of ESD and GCED, including some sophisticated assessment types aiming to capture a wider range of integrated knowledge and skills (Dumčius et al., 2020). The survey data bear this out, showing that traditional assessment methods are least often used. Nearly 40 per cent of respondents indicated that they never or only rarely give their students homework related to global and country-specific challenges linked to the teacher's discipline (Figure 13). Around one-third

rarely or never set exams or practical assignments. Oral feedback is the most common assessment approach, used by well 55 per cent of respondents on a weekly basis.

“ I asked my students to take photos of their daily life consumption in order to evaluate the pros and cons concerning their habits, and then we had a lesson where we talked about the habits that can help empower them to change their consumption”

– A teacher from Lebanon

Figure 13. Approaches used in the assessment of sustainable development and global citizenship topics (percentage of respondents)



Data Source: Global teacher survey (2021). (n=58,280).



FINDING #11:

Female teachers teach ESD and GCED more frequently and report fewer difficulties when teaching ESD and GCED topics.

back this up. The data suggest that female teachers teach ESD and GCED topics slightly more frequently than their male counterparts. Sixty-three per cent of female teachers teach about the severity of climate change at least once a month, compared with less than 60 per cent of male teachers. Female teachers are slightly more likely than their male colleagues to teach about different cultural beliefs, traditions and languages and human rights (Figure 14).

Research suggests that gender has an impact on sustainability and sustainable behaviours (Jucker & Mathar, 2015). To a certain extent, the survey data

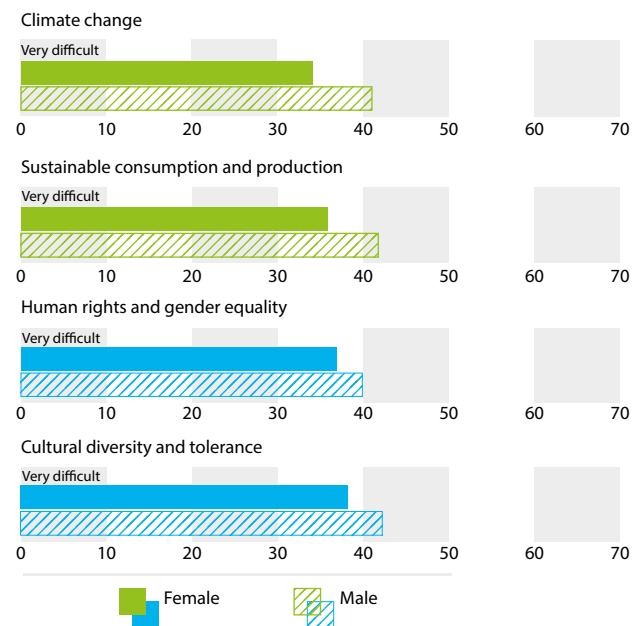
Figure 14. Teaching different ESD and GCED topics at least once a month, by sex (percentage of respondents)



Data Source: Global teacher survey (2021). (Male n=22,457, Female n=35,796).

Female teachers report facing fewer challenges than male teachers do in teaching ESD and GCED topics. Between 35 and 40 per cent of female teachers indicate that they face no or minimal challenges, compared with around one-third of male teachers. However, a similar proportion of women (35-40 per cent) and a higher proportion of men (around 40 per cent) report finding it very difficult to teach these topics (Figure 15).

Figure 15. Teachers finding it very difficult to teach ESD and GCED topics (percentage of respondents)



Data Source: Global teacher survey (2021). (Male n=22,457, Female n=35,796).



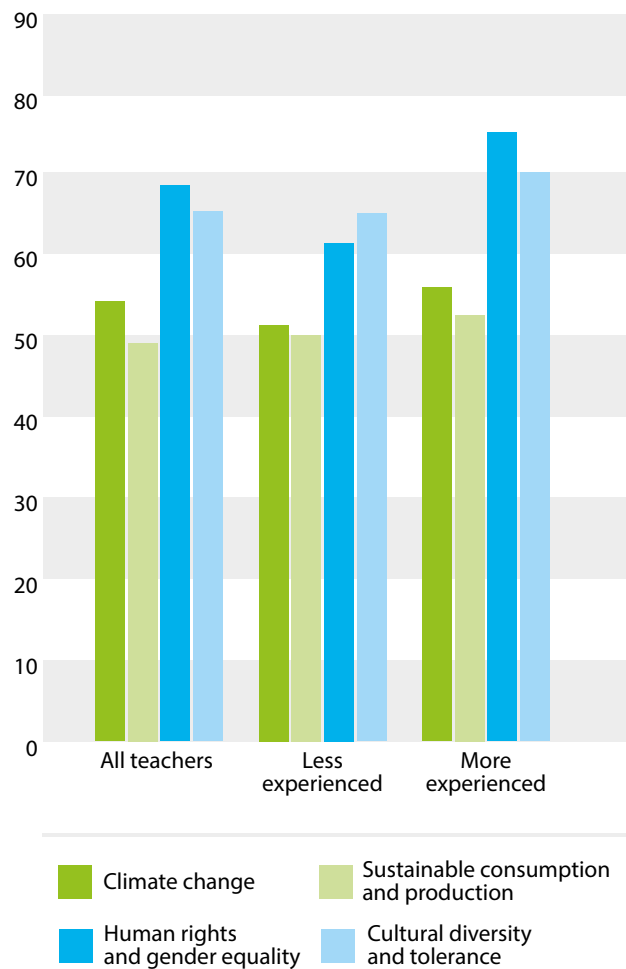
FINDING #12:

Teachers report that teacher education insufficiently covers sustainable consumption and production and climate change, yet teachers with more education and classroom experience feel more confident in teaching these themes.

Teachers identified human rights and cultural awareness, discrimination and related injustices as the areas in which they had the most learning opportunities. Nearly 70 per cent reported that learning about human rights was included either in their initial teacher education or in subsequent professional learning. Cultural awareness, discrimination and related injustices were almost as well covered. Women were much more likely to recall these issues being addressed in their teacher education programmes than were men (Figure 16).

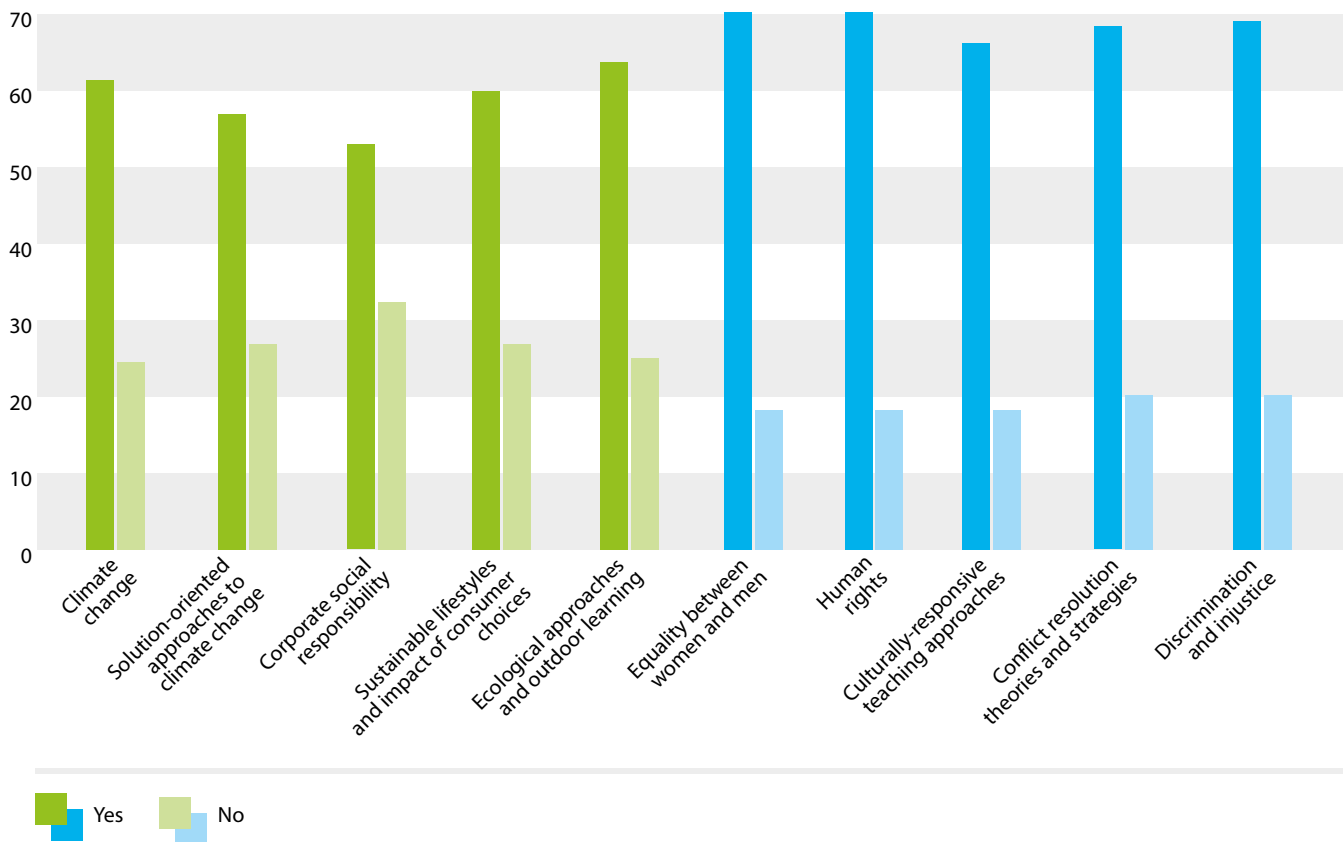
However, only 44 per cent of teachers reported receiving training either pre-service or during their teaching career in corporate social responsibility and about 55 per cent had training on climate change and sustainable lifestyles. More experienced teachers had more often received training than had other groups. Three-quarters of teachers with more than 20 years of experience reported having received training on human rights and gender equality and 70 per cent on cultural diversity and tolerance. Only 60-65 per cent of teachers with 10 or fewer years of experience had received such training. Differences were less marked in training on sustainable consumption and production and climate change but more experienced teachers still reported having received more training than less experienced ones.

Figure 16. Teacher training in ESD and GCED topics by years of experience (percentage of respondents)



Data Source: Global teacher survey (2021). (All teachers, n=58,168, Less experienced teachers (10 years or less) n= 18,043, More experienced teachers (more than 20 years) n= 21,080).

Available professional development in topics related to ESD and GCED showed similar patterns to those reported on initial teacher education. In ascending order, 52 per cent reported the availability of continuing professional development about regulation and corporate responsibility, 60 per cent about sustainable living, 62 per cent of teachers about climate change and environmental issues, and 70 per about human rights and gender equality issues (Figure 17).

Figure 17. Availability of continuing professional development in selected ESD and GCED topics (percentage of respondents)

Data Source: Global teacher survey (2021). (n=58,280).

Forty-seven per cent of teachers reported no professional education related to corporate social responsibility either in initial teacher education or continuing professional development. This suggests that student teachers are taught about sustainability from a personal rather than systems perspective, focusing on individual consumption rather than global goods distribution, the nature of supply chains in international trade and the subsidization of waste in pricing (e.g., no one pays for the safe capture of the carbon their cars emit).

This finding echoes research that has found a tension between global education aimed at assisting individuals to compete in the job market and that aimed at increasing learners' ability to participate in society as citizens (see DiCicco, 2016, pp. 6–7). Emphasizing workplace skills development

as a rationale for global learning tends to avoid controversial topics that would require massive changes, such as the global distribution of goods and services. Any critique of the system is typically not part of student learning. This is well reflected in a comment by a respondent from an international upper secondary school in Germany:

“ In fact, it is controversial, because the business model of international schools could be threatened by the measures needed to control and reduce greenhouse gas emissions. After all, our students travel great distances to come to our school and come from families who work in international businesses which will all have to change their business models if we are to hit the

targets defined by the science. Thus, my biggest difficulty in teaching this topic is the feeling that we are not going to make the changes we really need to, and that by raising awareness of the urgency of the situation we will encounter stress and conflict at personal and community levels. I think this is why many simply turn away from acknowledging the predicament. For this reason, training in compassion and emotional intelligence is crucial, as levels of anxiety and stress rise.”

Experienced teachers were generally more confident in their ability to teach about climate change than those with less experience, suggesting that repeated, iterative efforts at teaching climate change improve confidence in teaching about climate change over time.

3.3 Opportunities: Are teachers supported in teaching ESD and GCED?

To create an environment in which teachers feel supported and ready to teach ESD and GCED, input is needed from many different actors, at school, community and system levels. However, this study suggests that the whole-school approach is adopted only in a limited way across the world. Key barriers to teaching ESD and GCED include the lack of basic facilities and technology in schools, as well as, critically, the absence of coverage of ESD and GCED themes in the curriculum. The survey asked teachers to what extent they feel curricula and education content cover ESD and GCED themes and the critical and interdisciplinary aspects needed to teach them.



FINDING #13:

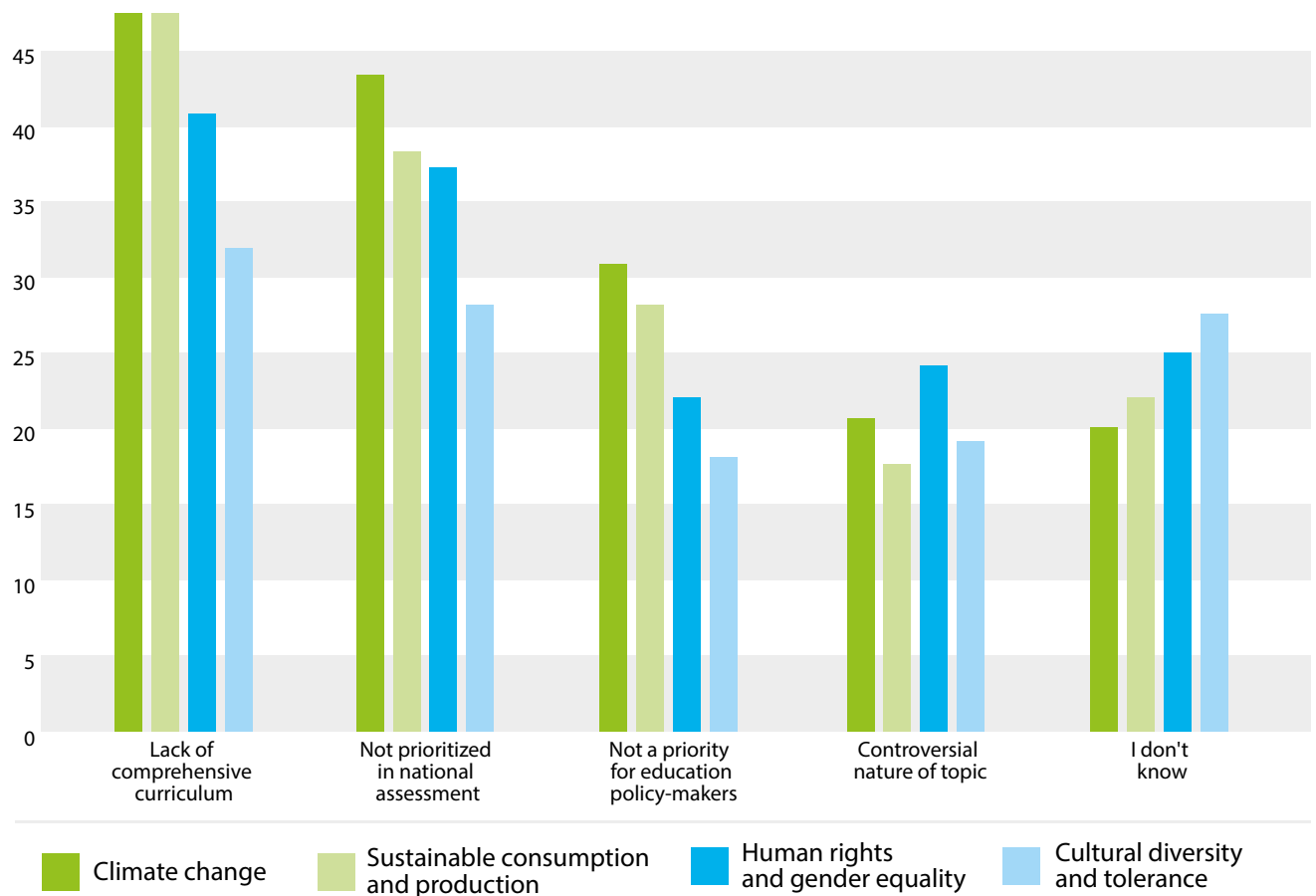
Teachers say that lack of curriculum coverage of ESD and GCED is the most profound system-level barrier to teaching ESD and GCED themes.

Respondents perceive GCED themes to be better incorporated in curricula than ESD themes. One-fifth of respondents report that ESD-related topics are covered only to a small degree. This gap echoes comparative studies that find that 89 per cent of countries cover GCED themes in their education policies, compared with 51 per cent that cover ESD themes (McEvoy, 2017). Lack of comprehensive curricula was the most frequently reported obstacle to teaching ESD and GCED themes, cited by between one-third and one-half of respondents who reported teaching these themes to be challenging (Figure 18). The next most frequent challenge was ESD and GCED's lack of priority within national assessment, which is in most countries also highly dependent on the curriculum.

“ It is recommended that materials on sustainable development and/or global citizenship be provided at all levels and also be integrated with all subjects and standardized in the current curriculum.”

– A teacher from Indonesia

Figure 18. Challenges in teaching the ESD and GCED topics (percentage of respondents reporting experiencing challenges)



Data Source: Global teacher survey (2021). (Climate change n= 28,004, Sustainable consumption and production n=30,665, Human rights and gender equality n=27,229, Cultural diversity and tolerance n=26,610).

The controversial nature of the topic was reported as a system-level barrier to teaching climate change slightly more often than it was reported as a school-level barrier. For the remaining thematic areas, the share that listed 'controversial nature' as a barrier at system level was more or less the same as the share that reported it at school level. This suggests that the respondents believed climate change to be less accepted at the system level than at school level – although even at the system level, 'controversial nature' was not the most frequently reported barrier.



FINDING #14:

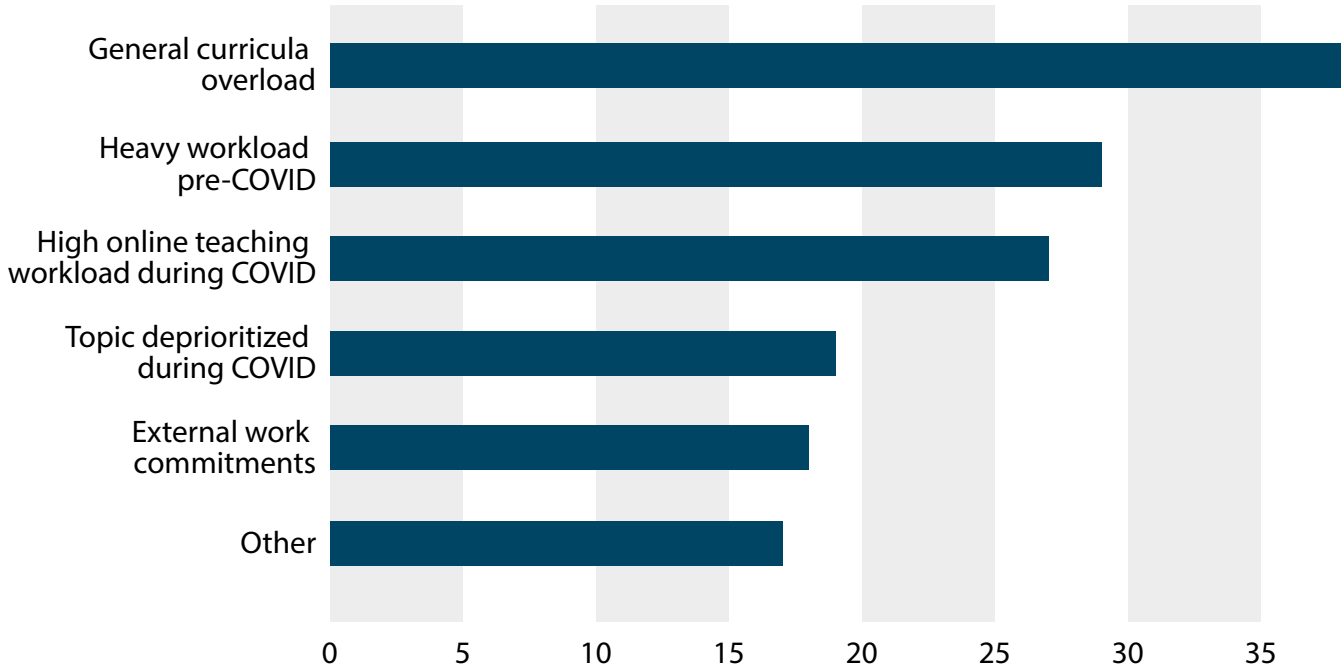
Overcrowded curricula can inhibit teachers' ability to teach ESD and GCED.

Teachers who said they face barriers due to time constraints (approximately 11 per cent of all respondents) reported that the main reason was the overcrowding of the curricula with various other priorities (Figure 19). They also reported that their workload was too high before the pandemic and/or had increased during it. Given that the majority of

teachers express a need for better coverage of ESD and GCED themes in curricula, education policy-makers reviewing curricula must include ESD and

GCED in a way that does not increase the burden on teachers.

Figure 19. Causes of teachers' time constraints (percentage of respondents reporting experiencing time constraints)



Data Source: Global teacher survey (2021). (n=6,476).



FINDING #15:

Lack of relevant equipment and tools was the most frequently reported barrier at the school level.

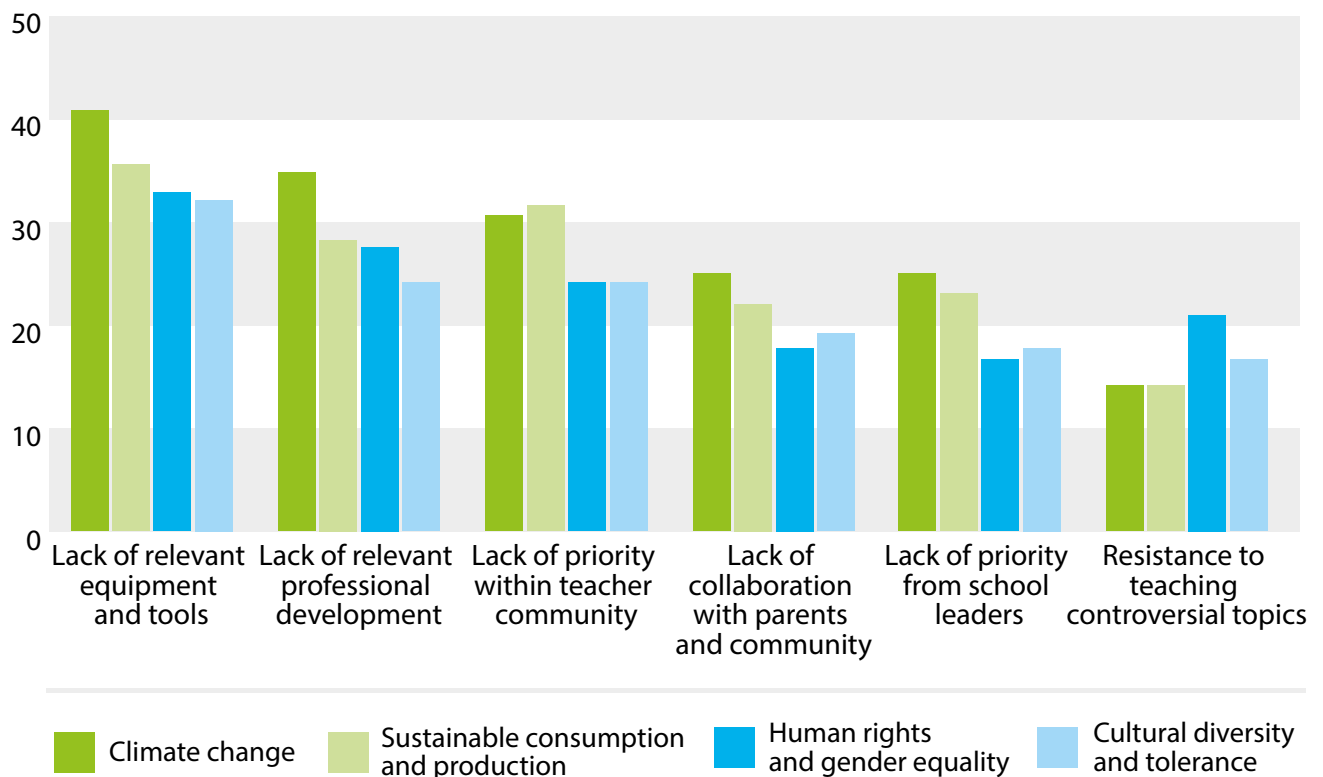
Teachers were asked about the extent to which they faced barriers at school level that impinge on their ability to teach the ESD and GCED themes. Lack of relevant equipment and tools was the most frequent barrier at school level, while resistance to teaching the topic due to its controversial nature was least frequently reported (Figure 20). This is interesting, given that literature and media frequently points out the controversial nature of ESD and GCED topics. There are many possible explanations for this result. For example, it may be that resistance

is less common than studies indicate, or it may be that curriculum designers and/or teachers tend to choose to cover less controversial content, an observation backed up by some teacher comments.

“ If there is a change in curriculum to include topics on human rights in the syllabus it would make it less risky, since an attempt to talk about human rights in Zimbabwean schools would be taken as politicizing the learner by politicians from the local community.” – A teacher from Zimbabwe

“ I can't teach these topics without permission.” – A teacher from Kuwait

Figure 20. Barriers to teaching ESD and GCED themes at school level (percentage of respondents reporting experiencing barriers)



Data Source: Global teacher survey (2021). (Climate change n= 28,004, Sustainable consumption and production n=30,665, Human rights and gender equality n=27,229, Cultural diversity and tolerance n=26,610).



FINDING #16:

Few teachers have ESD and GCED education resources (content, material or guidelines) to support teaching in an engaging and innovative way across the three learning dimensions.

Only one-fifth of respondents reported having available education resources on how to teach skills that support students' understanding of ESD and GCED. Even fewer reported having materials on the interconnected and interdisciplinary nature of the topics. Respondents have the fewest resources on sustainable consumption and production. The trend was the same across regions. Several respondents

mentioned the need for hands-on and practical material, and material that is free of charge and available online. Many teachers wanted training as well as materials, a good reminder that curriculum reform and new educational content risk being ineffective if teachers are not guided on how to make use of new resources in their lessons (Bursjö, 2014). This finding was also clear from teacher comments on the initiatives they need:

“ Enough textbooks for the learners to use as reference material and availability (...) Being taught more frequently on issues of policy regarding these topics and available materials that can be used to refer to.” – A teacher from Botswana

“ If the Ministry of Education provided an approved textbook or other written material on each of these topics to each school, then teaching would be standardized and the content would be so as well.”

– A teacher from Trinidad and Tobago

“ The SOGI (sexual orientation & gender identity) curriculum in British Columbia is great. I feel adequately supported. Having materials for the youngest children is important (a lot of the materials tend to be more for upper intermediate and high school ages).”

– A teacher from Canada

“ Unified guidelines and recognized assessment tools on the national level how to access these topics within my subject (...) More regular updating of the national curriculum including materials and training on how to integrate these topics into individual subjects, e.g., language teaching.”

– A teacher from Slovenia

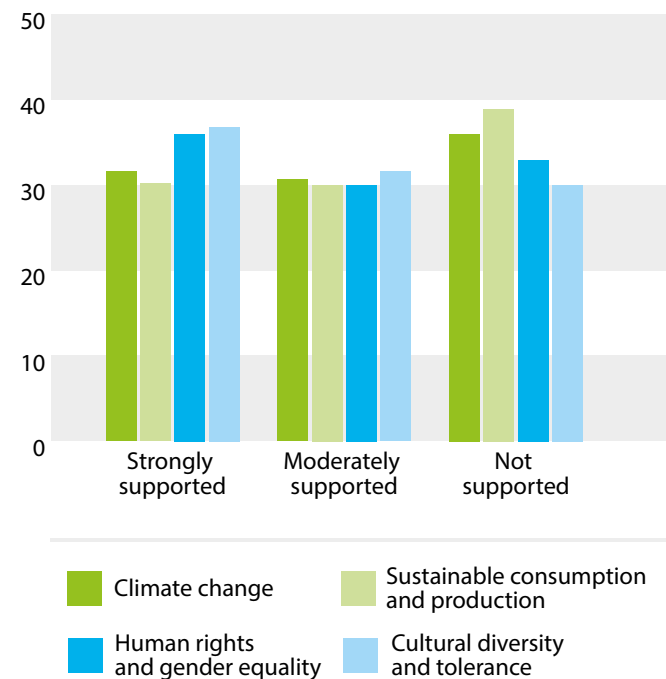


FINDING #17:

Schools, in particular in rural areas, provide insufficient support to help teachers implement ESD and GCED in an engaging and effective way.

Between 30 per cent and 40 per cent of respondents do not feel or feel only slightly supported in teaching ESD and GCED themes (Figure 21).

Figure 21. Teachers’ feeling of support in teaching ESD and GCED (percentage of respondents)



Data Source: Global teacher survey (2021). (n=58,280).

The survey asked the respondents who found it particularly challenging to teach ESD and GCED to report their most significant obstacles. Lack of equipment and tools was most frequently mentioned across all the regions, and frequently commented upon in open questions.

“ Provisions from the government [are needed] of suited and updated materials, tools and gadgets (including internet connectivity) to schools in order for the teachers to be at par with a high standard of education.” – A teacher from the Philippines

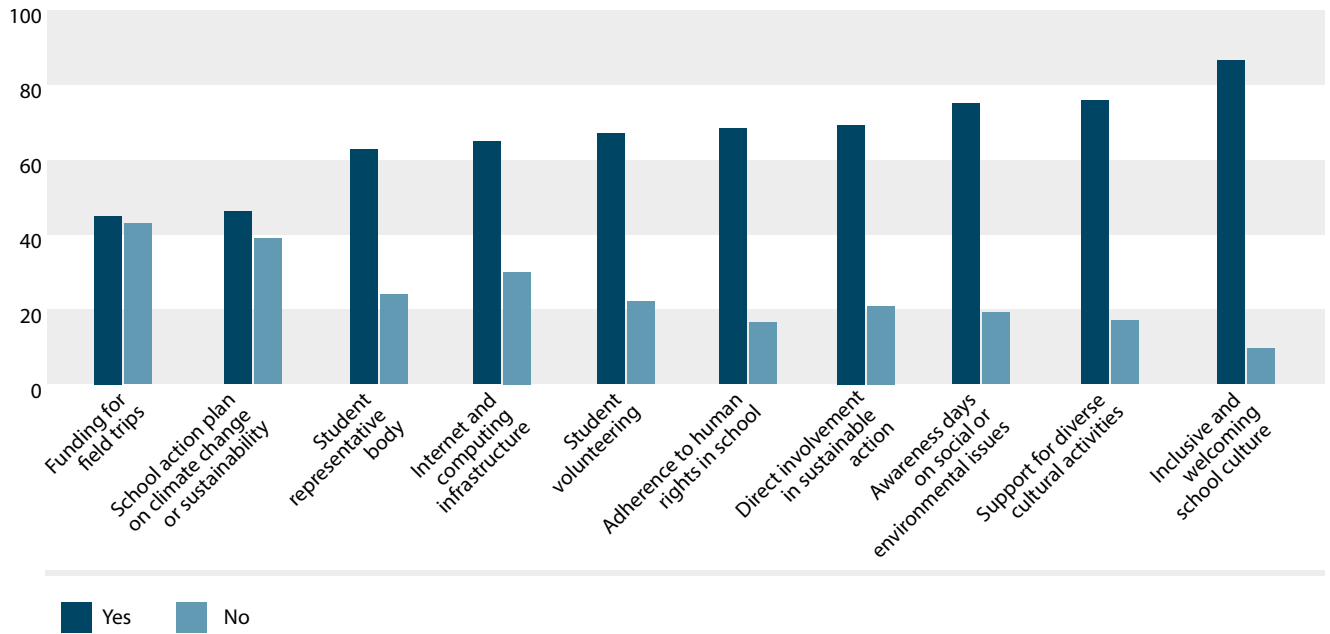
“ Initiatives needed include: Strengthening school library. Strengthening school IT centre. Capacity building through workshops and trainings. Providing financial support for outdoor trainings and field work with students.”

– A teacher from Cameroon

Across all regions, about 75 per cent of respondents report that their school organizes activities to enable students to express diverse cultural identities or take part in awareness days on social or environmental issues (Figure 22). More than 70 per cent report that their school takes a clear stand in their policies on adhering to

human rights through, for example, non-discrimination, transparency and accountability. However, only about 45 per cent of respondents report that their schools have an action plan on climate change or sustainability or have funds available for school field trips.

Figure 22. Activities and facilities available at school (percentage of respondents)

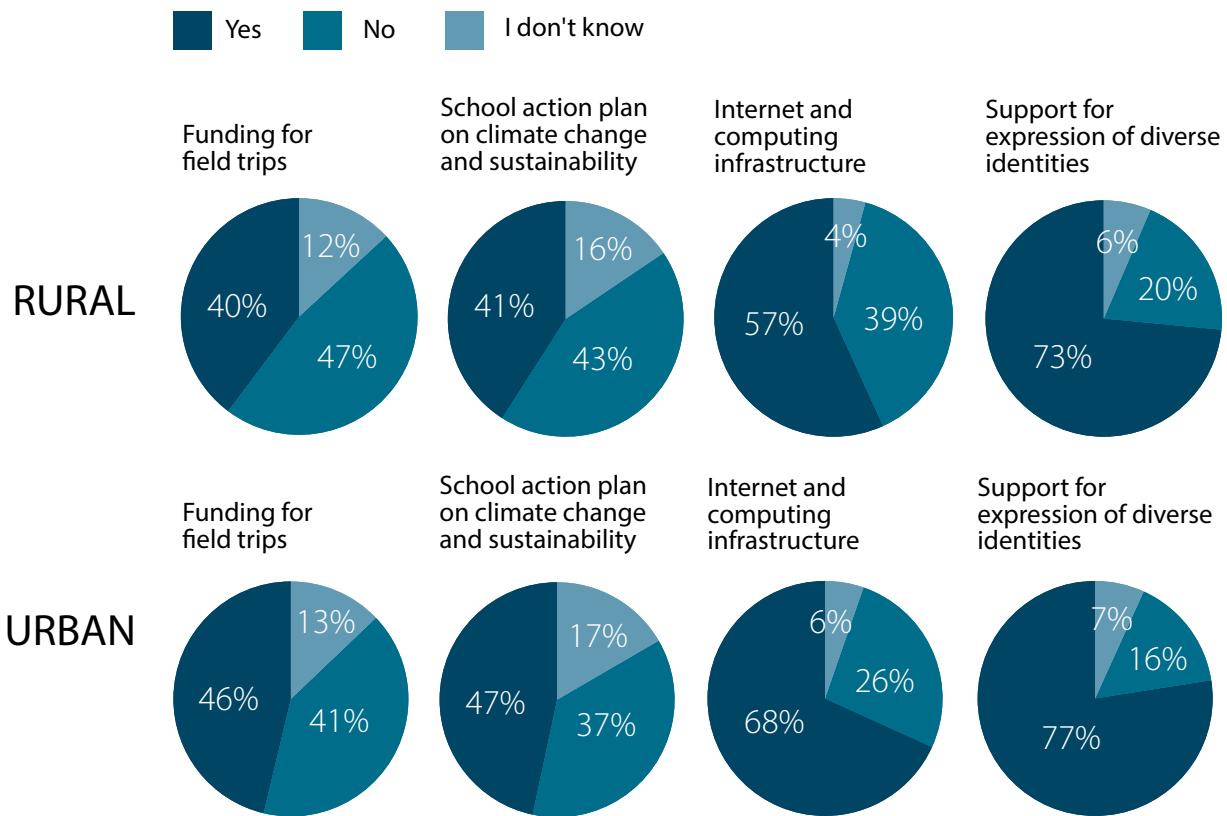


Data Source: Global teacher survey (2021). (n=58,280).

While schools tend to organize awareness days occasionally in all regions, the majority of teachers said that no funding is available for innovative pedagogies or field trips and that internet and computing infrastructure are neither sufficient nor well-functioning.

The survey found differences between rural and urban schools regarding access to sufficient and functioning internet and computing infrastructure as well as to various activities that require funding, such as school trips, cultural awareness days and action plans on how to tackle climate change (Figure 23).

Figure 23. Prevalence of practices in rural and urban schools (percentage of respondents)



Data Source: Global teacher survey (2021). (Rural n=16,556, Urban n=41,612).



FINDING #18:

Students do not have a sufficient voice in ESD and GCED at schools, in particular at primary school level.

More than one-third of respondents report a lack of student representative bodies in their schools. Teachers reported that students actively engage in volunteering activities, suggesting that students have capacity to act as a change agent at school level, but students have little say in school policies or issues concerning their well-being and interests. Studies find that participation in school elections and having a democratic student body that participates in decision-making processes help to prepare young people to participate in society as active citizens once they are adults (Shaw et al., 2017). A forthcoming

study finds that an active student council facilitated the inclusion of sustainability in school visions and school action plans (forthcoming, Mulvik et al., 2021), suggesting that student engagement can work as a key driver of opportunities at schools.

There were substantial differences in student representation at different levels of education. Seventy-two per cent of respondents reported a student representative body exists at upper secondary, compared with only 66 per cent at lower secondary and just 57 per cent at primary level. Similarly, fewer teachers report students being active in volunteering on ESD and GCED topics in primary school (10 percentage points difference). This is a missed opportunity, since giving students a voice at school is important for tolerance and inclusion, as well as for successful implementation of whole-school approaches to ESD and GCED. Box 2 describes the situation in Mexico.

Box 2. Lack of student voices and low level of active engagement in Mexico

Across the world, students had different levels of engagement with ESD and GCED. For example, in Mexico, only 48 per cent of respondents reported a student representative body at their school, and only 56 per cent reported that students actively engage in volunteering activities – 20 percentage points less than at global level. However, similarly to the global level, 80 per cent reported that schools organize awareness days on various social and/or environmental issues. In the open-ended responses and questions on teachers' level of understanding of social and emotional and behaviour teaching, teachers showed a much stronger understanding of the need to teach ESD and GCED themes to students. This suggests that teaching with students, using learner-centred pedagogies that build active competences and involving students in decision-making is not common in Mexico.

**FINDING #19:**

Teachers want a whole-school approach and more involvement from the wider community.

Teachers report the whole-school approach to ESD and GCED, and in particular ESD, is weakly implemented in their schools. Schools generally lack the necessary infrastructure and vision to make the learning experience of students holistic through innovative pedagogies, collaboration with the local community and student engagement. This is illustrated by comments from survey participants on the initiatives, policy and training that would make them feel more supported, which range from recycling stations to calls for increased collaboration with the wider community and with teachers within and outside the school.

“ I think training that involves everybody in the school district will benefit all.” – A teacher from South Africa

“ ESD and GCED should become a school concept where all classes are taught within a certain set up framework which offers teaching materials and possibilities.” – A teacher from Austria

“ In addition to becoming a part of the curriculum, there needs to be more involvement of school administrators and parents.” – A teacher from Malaysia

“ Our country is in the process of introducing considerable changes to rural production guidelines. There has been significant consultation between Central/local government and the farming sector. It would be great if the government and the national qualifications authority, in conjunction with the rural sector developed courses/resources that teachers could use.” – A teacher from New Zealand

**FINDING #20:**

Some teachers have benefited from targeted efforts by governments and non-formal teacher training institutions to provide online solutions and materials for teachers during the COVID-19 pandemic, while others have received limited support.

The COVID-19 pandemic has had a major impact on teachers' ability to deliver high-quality education, as teacher responses to open-ended survey questions revealed.

Language can be a barrier hindering teachers' access to online resources when their own education system does not provide it, or an enabling factor providing greater access to material. Some teachers are increasingly using online resources developed in English-speaking countries. One female teacher from Georgia was very optimistic about the possibility to learn about and teach ESD and GCED by using online resources that she could access in English.

“ I teach these issues by promoting non-formal education, in close connection with nature, so that students can better assess the real situation. Also, if I have the opportunity through training, I will further deepen my methodological knowledge. It is essential that all teachers know English in order to get more resources, as it is a major requirement of the global world.” – A teacher from Georgia

Several respondents also reported that education policy-makers need to better consider how to design content for teachers who do not have access to the technologies that make available free content for teachers and students.

“ I am overwhelmed by the bombardment of online resources made available since online learning started. I need meaningful interactive guidance to implement useful online learning. Passive video instructions promoting the use of technology that does not exist at my school is frustrating. Training in the use of electronic accounting methods would be great. My

school does not have internet access in all classrooms and the data projectors in the different rooms are not all compatible with my available laptop. Training in the correct use of technology is required. Learners do not have access to devices other than cell phones and very few have access to data or wifi at home. Learners at my school do not receive assistance in the form of tablets or data from the provincial education department.” – A teacher from South Africa



4. The road ahead

ESD and GCED have become more important than ever before, as globalization continues to bring about economic, social and political transformation and the world becomes more and more interconnected through increased mobility, new technologies and societal change (Gaudelli, 2016). In response, over the last decade and through advocacy led by international organizations, education systems around the world have been progressively integrating ESD and GCED content into education policies, curricula and teacher training (McEvoy, 2016). This trend is well documented by many studies (Goren & Yemini, 2017; Bamber, 2019; Gaudelli, 2016; Kolleck & Yemini, 2020; Pashby & Sund, 2020).

Teachers adopt context-specific approaches to teach ESD and GCED in accordance with their own motivation, skills and opportunities (Goren, Maxwell, & Yemini, 2019). This means that whatever policies are in place, teachers play a major role in their *de facto* application in the classroom. As such, they must be empowered and enabled to teach ESD and GCED effectively.

This study is the first large-scale attempt to capture teachers' perceptions of their own readiness to teach ESD and GCED thematic areas. No other study has sought to track teachers' readiness in terms of the motivation, skills and opportunities teachers have to teach ESD and GCED themes effectively and instil in students the knowledge, skills, values, attitudes and behaviours that will enable them to forge sustainable, just and peaceful societies, through individual and collective action at local and global levels.

Motivation, skills and opportunities: A recipe for success

Teachers need to be motivated and have skills and opportunities to be ready to successfully teach ESD and GCED. Lacking any one of these components will impinge on teachers' ability to deliver ESD and GCED effectively. If educators are not motivated to explore ESD and GCED, for example, they will be unlikely to pursue it even in the face of an environment that offers opportunities to do so. If teachers are highly motivated but their opportunities are limited, as this survey demonstrates, then the teaching community will find it hard to overcome obstacles to mainstreaming

transformative educational approaches. This may lead to only superficial sustainability and citizenship education, which will not lead to behavioural change.

Teachers make an active contribution to shaping their own work and working conditions, but whatever their individual capacity, institutional and systemic factors, such as curricula and assessment, professional development, school culture and support from education authorities, have a transformative effect on teachers' opportunities to deliver ESD and GCED. Teacher readiness, therefore, lies in the intersection of teachers' motivation and skills and the opportunities they have at school and in their immediate and broader socio-political community to engage in meaningful and impactful ESD and GCED teaching.

Implications for future research

This study points to the need for research to further explore, in local contexts and on a global level, inequalities in teacher readiness in terms of opportunities provided and skills developed. Additional research is needed to better understand the role of teachers' organizations, unions, networks, and training institutions in preparing teachers to feel ready for the task. More exploration is required to assess how collaboration with other teachers locally and globally can support teachers' readiness, and to what extent teachers' motivation to teach these topics can stimulate greater student engagement. Gender differences and regional differences in terms of motivation, skills and resources available need to be further explored, as do rural–urban divides between and within countries. Further research should also consider differences in teaching ESD and GCED to and within vulnerable groups, including those living in poverty and those of different migration statuses, as well as those with intersecting disadvantages. As COVID-19 continues to pose challenges to schooling and learning more broadly, its effects on teachers' readiness to teach GCED and ESD needs to be elucidated.

Finally, existing research on assessment strategies and tools and on effective pedagogical approaches that support ESD and GCED learning needs to be better disseminated, so as to inform teacher practice, and should be more frequently taken into account by policy-makers in designing curricula and policies.

Call to action

This survey has demonstrated that teachers want a comprehensive approach in addressing current gaps in teaching ESD and GCED. While most teachers are confident in their motivations and awareness, they are generally less certain of their skills in teaching ESD and GCED, especially given their lack of professional training, teaching tools, resources, curricula and overall support from their schools and wider community.

Inspired by their views, and as a direct response to the world's local and global environmental and social challenges, we call on the education community – lawmakers, policy-makers, educational planners, curriculum developers, teacher trainers, teachers, school leadership and staff and communities and other concerned actors – to take the following actions:

1. **Consider GCED and ESD as core components of quality education.** The Sustainable Development Goals make clear the importance of both these topics as part of providing equitable, inclusive quality education for all. Policy-makers must make every effort to achieve SDG target 4.7 by 2030. To do so, internationally agreed policy roadmaps, such as the 2021 Berlin Declaration on Education for Sustainable Development (UNESCO, 2021b), should be followed.
2. **Integrate GCED and ESD as core curricular components in primary and secondary education.** Not all teachers are supported by the curricular framework needed to allow them the time and opportunity to teach GCED and ESD. Lifting this profound system-level barrier is critical to ensure GCED and ESD are included across all grades. As interdisciplinary topics, they should be included across the curricula of multiple subject areas at all levels, and whole-school approaches as well as approaches engaging with the wider community should be encouraged and facilitated.
3. **Provide high-quality and relevant teaching and learning materials on global citizenship and education for sustainable development.** Teachers should be enabled to participate in the development of curriculum materials to implement ESD and GCED. Teachers must have better access to materials on ESD and GCED, and on sustainable consumption and production in particular, as the topics teachers found most challenging to teach. Materials should be up-to-date, accessible in local languages, adjusted according to local contexts and preferably requiring fewer tangible resources to implement. Teaching guidelines and resources should be provided to support teachers across the three learning dimensions (cognitive, socio-emotional and action-oriented). Finally, targeted efforts are urgently needed to provide ESD and GCED online materials to support distance learning in contexts of crisis such as during the COVID-19 pandemic.
4. **Provide high-quality professional development and teacher training to teach ESD and GCED.** All teacher training programmes should provide teachers with skills to teach ESD and GCED. Behavioural learning and socio-emotional perspectives are currently inadequately covered in teacher preparation programmes, and steps must be taken to change this. Training should also include opportunities for collaboration; up-skilling on effective pedagogical techniques for teaching GCED and ESD, including student-centred, inclusive and gender responsive teaching methods; interdisciplinary project-based learning; and engagement with the local community and natural environment. Consultation with teachers and teacher representatives should ensure that the training opportunities provided are relevant to teacher needs.
5. **Provide training and tools to support teachers in assessing students on ESD and GCED.** Teachers need more support to formatively assess cognitive skills, socio-emotional learning and action competences. Traditional assessment methods are inadequate to assess ESD and GCED, particularly those supporting students' capacity to act sustainably and peacefully in line with ESD and GCED. Skills are more difficult than knowledge to assess, and teachers need access to flexible, authentic and open-ended assessment tools, as well as training in their use.

- 6. Involve teachers – especially through their elected representatives – in determining policies, curricula and assessment methods on GCED and ESD.** Policies, curricula and tools for ESD and GCED must be developed in consultation with teachers and their unions. Policymakers must engage in dialogue with teachers' unions on how to better execute ESD and GCED in schools.
- 7. Support teacher leadership and professional autonomy.** Teachers need professional autonomy in determining how to teach GCED and ESD. Teachers are highly motivated to teach GCED and ESD, as evidenced in this study. This must be harnessed, and teachers should be provided with the opportunity to contribute to shaping whole-school approaches for teaching GCED and ESD. Teachers also need support to engage in peer-to-peer learning and collaboration within and between schools.
- 8. Create a conducive school environment for teaching ESD and GCED.** School leaders should put principles into action on ESD and GCED by greening schools, fostering an inclusive, tolerant and peaceful school culture, and promoting a whole-school approach.
- 9. Foster broader collaborations with academic institutions for ESD and GCED.** The development of teaching resources as well as assessment tools should be done in a scientific, systematic and comprehensive manner. To do so, academic institutions must involve themselves in conducting research and supporting teachers to participate in research that answers the pressing needs of teachers. Existing research should also be better shared and used to inform policies.
- 10. Ensure the active participation of students in determining ESD and GCED policies and practices.** Students, especially at primary level, do not have a sufficient voice in ESD and GCED matters. Policy-makers, school leadership and staff must recognize the active role of learners as crucial actors in ESD and GCED. To enhance their participation and that of their respective communities, it is important to seek their opinions, listen to and understand their specific needs, solicit their participation, and ensure that curricula and teaching materials are tailored to match.
- 11. Finally, prioritize GCED and ESD to ensure adequate investments are made to support teachers to teach ESD and GCED.** Findings show that the most commonly used teaching methods to teach ESD and GCED are those that require fewer tangible resources. Investments should be made to ensure that teachers have the materials – but also the training, support and working conditions – that they require to use the most effective teaching methods. Findings show that teachers teaching in rural areas feel the least supported to teach GCED and ESD in engaging and effective ways. Resources should be allocated equitably to support teachers in the most disadvantaged communities.

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Teachers have their say

Motivation, skills and opportunities to teach education for sustainable development and global citizenship

This publication summarizes the findings of a survey commissioned by UNESCO and Education International to assess teachers' readiness to integrate education for sustainable development (ESD) and global citizenship education (GCED) into their teaching. Its findings demonstrate that teachers want a comprehensive approach in addressing current gaps in teaching ESD and GCED. While most teachers are confident in their motivations and awareness, they are generally less certain of their skills in teaching ESD and GCED, especially given often insufficient professional training, teaching tools, resources, curricula and overall support from their schools and wider community. Inspired by their views, and as a direct response to the world's local and global environmental and social challenges, UNESCO and Education International call on the education community – lawmakers, policy-makers, educational planners, curriculum developers, teacher trainers, teachers, school leadership and personnel and communities and other concerned actors – to take action.

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