



United Nations
Educational, Scientific and
Cultural Organization



UNESCO
INSTITUTE
FOR
STATISTICS



TECHNICAL
COOPERATION
GROUP



Proposal for monitoring of SDG indicators 4.7.1, 12.8.1 and 13.3.1

TCG6/REF/14



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DRAFT MODULE FOR THE CONSTRUCTION OF GLOBAL SDG INDICATORS 4.7.1, 12.8.1 AND 13.3.1

I. Introduction

1. In July 2017, the UN General Assembly adopted a global indicator framework for the follow-up and review of the 17 goals and 169 targets of the 2030 Agenda for Sustainable Development adopted in September 2015 (Resolution 71/313). Three of the targets (4.7, 12.8 and 13.3) make references to education for sustainable development including climate change and/or to global citizenship education including gender equality and human rights education. UNESCO is custodian or co-custodian for the following three global indicators for the monitoring of these targets:
 - 4.7.1: *The extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education and (d) student assessment.*
 - 12.8.1: *The extent to which (i) global citizenship education and (ii) education for sustainable development (including climate change education) are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education and (d) student assessment.*
 - 13.3.1: *Number of countries that have integrated mitigation, adaptation, impact reduction and early warning into primary, secondary and tertiary curricula.*
2. The global indicators for Targets 4.7 and 12.8 are very similar and are currently based on a quadrennial reporting mechanism by UNESCO Member States on the implementation of the *1974 Recommendation concerning Education for International Understanding, Co-operation and Peace and Education relating to Human Rights and Fundamental Freedoms*. The results of the 6th round of reporting which took place in 2016 were used to develop an initial methodology for the calculation of both indicators. Following feedback at the end of 2018 from the body responsible for the development of the global indicator framework, the Inter-Agency and Expert Group on SDG Indicators, the reporting instrument is being revised to ensure a better alignment with the requirements of these two global indicators. At the same time, it is proposed to collect data for the construction of global indicator 13.3.1, which is related to the other two indicators using the same instrument.
3. The following set of questions is intended to collect data for indicators 4.7.1, 12.8.1 and 13.3.1. It will be included in the draft questionnaire for the 7th round of reporting on the implementation of the 1974 Recommendation in 2020. The questions have been chosen to provide sufficient data for the calculation of the indicators whilst keeping the questionnaire to a manageable size. They form a subset of the full questionnaire and have been ordered to reflect the respective components of the global indicators. Questions marked with an asterisk (*) will be used in the calculation of the respective indicators. Each section of the questionnaire will begin with an open-ended question which will provide further qualitative information to inform countries' responses to the questions which will be used to construct the indicators.
4. One question covers climate change education only to cater for the specific needs of indicator 13.3.1 (climate change education).
5. UNESCO is consulting a wide range of experts on this set of questions, including thematic experts in education for sustainable development and global citizenship education, partner organizations and experts on the sustainable development goal indicators. Ministries of Education and National Statistical Offices will be invited to volunteer to participate in a pilot exercise to test the questions. The set of questions needs to be finalised by September 2019 in order to be used for data collection in 2020.



II. Guidelines

1. The questions in this module are addressed to Ministries of Education and other government authorities responsible for education. National respondents are encouraged to consult widely both within and across government, including national human rights institutions, with the education sector and with civil society partners to gather information necessary to complete this module.
2. Responses should cover education at all levels of formal education from pre-primary to tertiary education as well as non-formal education and other types of education that may exist in the responding country.
3. Responses should cover all levels of government that have responsibility for education within the country.
4. There is, as yet, no common agreement on the definitions of global citizenship education and education for sustainable development. Countries often use different terms when referring to topics under either of these headings. Therefore, to assist countries in responding to this module, UNESCO has developed the following set of themes within global citizenship education and education for sustainable development. Please refer to the definitions of key terms in Section III before completing the questionnaire.

1. Global citizenship education

1.1 cultural diversity and tolerance

1.1.1 international or intercultural understanding, solidarity and cooperation

1.1.2 intercultural and interreligious dialogue

1.1.3 local, national and/or global citizenship

1.2 gender equality

1.2.1 gender-based equal opportunities

1.2.2 gender equality and justice

1.2.3 gender roles, identity and stereotypes

1.3 human rights

1.3.1 equality and non-discrimination based on race, colour, language, religion, disability, political or other opinion, national or social origin, birth or other status

1.3.2 human rights values, human dignity, justice, inclusion and participation

1.3.3 respect for human rights and fundamental freedoms (as outlined in international conventions and declarations)

1.4 peace and non-violence

1.4.1 friendly relations among peoples and nations

1.4.2 challenging negative stereotypes, promoting peaceful solutions, learning to live together, including others and preventing violent extremism

1.4.3 preventing other forms of violence including bullying, verbal abuse and gender-based violence

2. Education for sustainable development

2.1 climate change

2.1.1 Mitigation

2.1.2 Adaptation

2.1.3 Impact reduction

2.1.4 Early warning



- 2.2 environmental sustainability
 - 2.2.1 caring for the planet, protecting nature
 - 2.2.2 environmental justice
 - 2.2.3 biodiversity, water
 - 2.3 human survival and well-being
 - 2.4.1 environmental health as it pertains to human well-being, disaster risk reduction
 - 2.4.2 health of the planet for future generations
 - 2.4.3 sustainable cities and communities
 - 2.4 sustainable consumption and production
 - 2.3.1 responsible and sustainable lifestyles
 - 2.3.2 green economy, green jobs
 - 2.3.3 sustainable energy
5. If you have any questions about this module or how to complete it, please contact Ms Alison Kennedy, Senior Project Officer in the Section for Education for Sustainable Development (a.kennedy@unesco.org Tel +33 1 45 68 18 32). Completed modules should be sent to Alison, if possible, no later than **15 September 2019**.

III. Definitions of key terms

Term	Definition
1. Global citizenship education	<p><i>Education which empowers learners of all ages to assume active roles, both locally and globally, in building more peaceful, tolerant, inclusive and secure societies. It can be summarised as 'learning to live together'.</i></p> <p><i>It is based on the three domains of learning – cognitive, socio-emotional and behavioural.</i></p> <ul style="list-style-type: none"> • <i>Cognitive: knowledge and thinking skills necessary to better understand the world and its complexities.</i> • <i>Socio-emotional: values, attitudes and social skills that enable learners to develop emotionally, psychosocially, and physically and to enable them to live together with others respectfully and peacefully.</i> • <i>Behavioural: conduct, performance, practical application and engagement.</i> <p><i>It includes cultural diversity and intolerance, gender equality and human rights and peace and non-violence.</i></p> <p><i>(Based on UNESCO website: https://en.unesco.org/themes/gced/definition)</i></p>
1.1 Cultural diversity and tolerance	<p><i>Education about diversity including language, ethnicity, race, religion as well as the development of tolerance, mutual respect and appreciation for cultural diversity. It includes intercultural and interreligious dialogue, understanding, solidarity and co-operation, and citizenship education.</i></p>
1.2 Gender equality education	<p><i>Education that examines how gender roles, activities, needs, opportunities, rights and entitlements affect men, women, girls and boys differently. It deals with the relationships between females and males and their access to and control of resources and the constraints they face relative to each other and promotes gender equality and justice.</i></p> <p><i>It focuses on the rights of men and women to develop their personal abilities and make choices without the limitations set by stereotypes, rigid gender roles and prejudices. It includes gender-based equal opportunities, gender equality and justice, and gender roles, identity and stereotypes.</i></p>
1.3 Human rights education	<p><i>Education that promotes universal respect for and observance of all human rights and fundamental freedoms and thus contributes, inter alia, to the prevention of human rights violations and abuses by providing persons with knowledge, skills and understanding and developing their attitudes and behaviours, to empower them to contribute to the building and promotion of a universal culture of human rights.</i></p> <p><i>It includes equality and non-discrimination, human rights values, dignity, justice, inclusion and participation and respect for human rights and fundamental freedoms.</i></p> <p><i>(Based on the UN Declaration on Human Rights Education and Training, art. 2)</i></p>
1.4 Peace and non-violence	<p><i>Education about peace and peace-building, mediation, conflict prevention and resolution, non-violence, reconciliation and living together peacefully. It includes advocating for friendly relations among peoples and nations, challenging negative stereotypes, promoting peaceful solutions, learning to live together and preventing violent extremism and other forms of violence including bullying.</i></p>
2. Education for sustainable development	<p><i>Education that empowers learners to take informed decisions and responsible actions for environmental integrity, economic viability and a just society for present and future generations. It can be summarised as 'learning to live sustainably'. It covers</i></p>



	<p><i>sustainable lifestyles and ways of life, climate change, biodiversity, environmental sustainability, the greening of the economy and sustainable consumption, caring for the planet and disaster risk reduction.</i></p> <p><i>(Based on Education for Sustainable Development Goals: Learning Objectives.)</i></p>
2.1 Climate change education	<p><i>Education to help people, in particular youth, understand, address, mitigate, and adapt to the impacts of climate change. It encourages changes in attitudes and behaviours needed to put the world on a more sustainable development path, and build a new generation of climate change-aware citizens.</i></p> <p><i>It covers various responses to climate change including mitigation, adaptation, impact reduction and early warning.</i></p>
2.1.1 Mitigation	<p><i>Action to decrease climate change by either reducing the flow of greenhouse gases into the atmosphere (e.g. by reducing the use of fossil fuels) or by enhancing the 'sinks' that accumulate and store these gases (e.g. oceans, forests and soil).</i></p> <p><i>(Based on IPCC Glossary)</i></p>
2.1.2 Adaptation	<p><i>Responses to climate change designed to reduce the vulnerability of social and biological systems to sudden changes brought on by global warming and other climate changes.</i></p> <p><i>(Based on IPCC Glossary)</i></p>
2.1.3 Impact reduction	<p><i>Actions to reduce the adverse effects of climate change and manage any residual risk in order to strengthen resilience amongst individuals, communities and organizations touched by adverse climate-related effects.</i></p> <p><i>(Based on UNISDR terminology definition of disaster risk reduction)</i></p>
2.1.4 Early warning	<p><i>Capacities needed to generate and disseminate timely and meaningful warning information to enable individuals, communities and organizations threatened by a climate-related hazard to prepare to act promptly and appropriately to reduce the possibility of harm or loss.</i></p> <p><i>(Based on IPCC Glossary)</i></p>
2.2 Environmental sustainability	<p><i>Education about responsible interactions with the environment to avoid depletion or degradation and to promote environmental quality and health. It includes, caring for the planet and protecting nature, environmental justice, biodiversity and water.</i></p>
2.3 Human survival and well-being	<p><i>Education that promotes social well-being and harmony including in future generations due to healthy environmental systems. It includes health of the planet and environment related to human well-being, disaster risk reduction and sustainable cities and communities.</i></p>
2.4 Sustainable consumption and production	<p><i>Education on the use of resources, products and services that have a minimal adverse impact on the environment. It promotes resource and energy efficiency, sustainable infrastructure and green jobs. It includes responsible and sustainable lifestyles, the green economy and sustainable energy.</i></p>



IV. Information about the respondent

Country:

Name and job title of the respondent:

Institution/Department or Organization:

Email address:

Telephone:

Date of submission:



V. Other contributors consulted during the completion of this questionnaire

Please indicate below the names of other organizations and contributors consulted during the completion of this questionnaire.

Government institutions including other Ministries (please specify):

National human rights organizations (please specify):

Local and regional authorities responsible for education (please specify):

Other local and regional authorities (please specify):

Organizations representing education stakeholders (e.g. teachers, students, parents etc) (please specify):

Other civil society organizations:

Others (please specify):

VI. Questionnaire

General information

Each section will begin with an open-ended question which will allow countries to describe how GCED and ESD are covered in the given component of indicators 4.7.1 and 12.8.1. Countries will also be invited to provide evidence of their answers in the form of documents or links or examples of good practice. These questions will be used as part of the broader global consultation on the implementation of the 1974 Recommendation but will also make it possible to quality assure the answers to questions that will be used to calculate the indicators.

A. Policies

*A2. Please indicate which themes and sub-themes of GCED and ESD are covered in national or sub-national education policies, frameworks or strategic objectives affecting each level of education by entering the appropriate number in each white cell.

KEY: 0 = no, 1 = yes, 9 = unknown

	Pre-primary	Primary and secondary	Tertiary	Non-formal education
1. Global citizenship education				
1.1 Cultural diversity and tolerance				
1.2 Gender equality				
1.3 Human rights				
1.4 Peace and non-violence				
2. Education for sustainable development				
2.1 Climate change				
2.2 Environmental sustainability				
2.3 Human survival and well-being				
2.4 Sustainable consumption and production				

*A3new Please indicate whether national or sub-national education policies, frameworks or strategic objectives on education provide a mandate to integrate GCED and ESD in the following areas by entering the appropriate number in each white cell.

KEY: 0 = no, 1 = yes, 9 = unknown, 99 = not applicable (e.g. where the given level of government is not responsible for education)

	Nationally	Sub-nationally
Design or revision of curricula		
Setting of programme learning objectives		
Textbook development		
Teacher education and training		
Assessment of student outcomes		



*A4new Please indicate which themes and sub-themes of GCED and ESD are covered in national or sub-national laws, legislation or legal frameworks on education by entering the appropriate number in each white cell.

KEY: 0 = no, 1 = yes, 9 = unknown, 99 = not applicable (e.g. where the given level of government is not responsible for education)

	Nationally	Sub-nationally
1. Global citizenship education		
1.1 Cultural diversity and tolerance		
1.2 Gender equality		
1.3 Human rights		
1.4 Peace and non-violence		
2. Education for sustainable development		
2.1 Climate change		
2.2 Environmental sustainability		
2.3 Human survival and well-being		
2.4 Sustainable consumption and production		



B. Curriculum

*B2 Please indicate which themes and sub-themes of GCED and ESD are taught as part of the curriculum at each level of education by entering the appropriate number in each white cell.

KEY: 0 = no, 1 = yes, 9 = unknown

	Pre-primary	Primary and secondary	Tertiary	Non-formal education
1. Global citizenship education				
1.1 Cultural diversity and tolerance				
1.2 Gender equality				
1.3 Human rights				
1.4 Peace and non-violence				
2. Education for sustainable development				
2.1 Climate change				
2.2 Environmental sustainability				
2.3 Human survival and well-being				
2.4 Sustainable consumption and production				

*B3new Please indicate which responses to climate change are taught as part of the curriculum at each level of education by entering the appropriate number in each white cell.

KEY: 0 = no, 1 = yes, 9 = unknown

	Pre-primary	Primary and secondary	Tertiary	Non-formal education
2.1 Climate change education				
2.1.1 Mitigation				
2.1.2 Adaptation				
2.1.3 Impact reduction				
2.1.4 Early warning				



*B4 Please indicate in which subjects GCED and ESD are ~~mainly~~ taught at each level of formal education by entering the appropriate number in each white cell.

KEY: 0 = no, 1 = yes, 9 = unknown

	Global citizenship education			Education for sustainable development		
	Pre-primary	Primary and secondary	Tertiary	Pre-primary	Primary and secondary	Tertiary
Arts						
Civics, civil or citizenship education						
Ethics/moral studies						
Geography						
Health, physical education and sports						
History						
Languages						
Mathematics						
Religious education						
Science						
Social studies						
Other (please specify)						

*B5new Please indicate the approaches used to teach GCED and ESD in primary and secondary education by entering the appropriate number in each white cell.

KEY: 0 = no, 1 = yes, 9 = unknown

	Global citizenship education	Education for sustainable development
GCED/ESD are taught as separate subject(s)		
Cross-curriculum approach (e.g. GCED/ESD are taught in more than one subject but not throughout the curriculum)		
Integrated approach (e.g. making connections across all subjects, connecting the curriculum with learning experiences in the community and life outside school)		
Whole school approach (e.g. GCED/ESD are integrated in the school ethos, management, curriculum, teacher training, teaching practices and the learning environment)		

C. Teacher education

*C2 Please indicate whether teachers are trained to teach GCED and ESD during initial or pre-service training and/or through continuing professional development. Please enter the appropriate number in each white cell.

KEY: 0 = no, 1 = yes, 9 = unknown

	Pre-primary	Primary and secondary	Tertiary	Non-formal education
Initial or pre-service training				
For teachers regardless of the subjects they teach				
For teachers of selected subjects only (in which GCED or ESD are typically taught)				
Continuing professional development				
For teachers regardless of the subjects they teach				
For teachers of selected subjects only (in which GCED or ESD are typically taught)				

*C3 Please indicate on which themes and sub-themes of GCED and ESD is pre-service or in-service training available for teachers at each level of education by entering the appropriate number in each white cell.

KEY: 0 = no, 1 = yes, 9 = unknown

	Pre-primary	Primary and secondary	Tertiary	Non-formal education
1. Global citizenship education				
1.1 Cultural diversity and tolerance				
1.2 Gender equality				
1.3 Human rights				
1.4 Peace and non-violence				
2. Education for sustainable development				
2.1 Climate change				
2.2 Environmental sustainability				
2.3 Human survival and well-being				
2.4 Sustainable consumption and production				



*C4new Please indicate whether teachers are trained to teach the following dimensions of learning in GCED and ESD. Please enter the appropriate number in each white cell.

KEY: 0 = no, 1 = yes, 9 = unknown

	Pre-primary	Primary and secondary	Tertiary	Non-formal education
1. Global citizenship education				
Knowledge				
Skills				
Values				
Attitudes and behaviours				
2. Education for sustainable development				
Knowledge				
Skills				
Values				
Attitudes and behaviours				

*C5new Please indicate whether teachers are trained to use the following approaches to teach GCED and ESD in primary and secondary education by entering the appropriate number in each white cell.

KEY: 0 = no, 1 = yes, 9 = unknown

	Global citizenship education	Education for sustainable development
GCED/ESD are taught as separate subject(s)		
Cross curriculum approach (e.g. GCED/ESD are taught in more than one subject but not throughout the curriculum)		
Integrated approach (e.g. making connections across all subjects, connecting the curriculum with learning experiences in the community and life outside school)		
Whole school approach (e.g. GCED/ESD are integrated in the school ethos, management, curriculum, teacher training, teaching practices and the learning environment)		



D. Student assessment

*D2 Please indicate whether the themes and sub-themes of GCED and ESD below are generally included in student assessments or examinations at each level of education by entering the appropriate number in each white cell.

KEY: 0 = no, 1 = yes, 9 = unknown

	Pre-primary	Primary and secondary	Tertiary	Non-formal education
1. Global citizenship education				
1.1 Cultural diversity and tolerance				
1.2 Gender equality				
1.3 Human rights				
1.4 Peace and non-violence				
2. Education for sustainable development				
2.1 Climate change				
2.2 Environmental sustainability				
2.3 Human survival and well-being				
2.4 Sustainable consumption and production				

*D3 Please indicate which of the dimensions of learning below are generally included in student assessments or examinations at each level of education by entering the appropriate number in each white cell.

KEY: 0 = no, 1 = yes, 9 = unknown

	Pre-primary	Primary and secondary	Tertiary	Non-formal education
1. Global citizenship education				
Knowledge				
Skills				
Values				
Attitudes and behaviours				
2. Education for sustainable development				
Knowledge				
Skills				
Values				
Attitudes and behaviours				



E. Overall

*E1 Based on your responses to questions in the previous four sections (policies, curricula, teacher education and student assessment) please indicate to what extent global citizenship education (GCED) and education for sustainable development (ESD) are mainstreamed¹ in (a) education policies, frameworks or strategic objectives, (b) curricula (c) teacher education and (d) student assessment in your country. Please enter the appropriate number in each white cell in the table below.

KEY:

- 0 Not at all** *GCED and ESD are not mainstreamed.*
- 1 Partially** *Some themes or sub-themes of GCED and/or ESD are mainstreamed. Select this option if GCED is mainstreamed but ESD is not (or vice versa).*
- 2 Extensively** *Most themes and sub-themes of GCED and ESD are mainstreamed.*
- 9 Not known** *It is not known whether GCED and ESD are mainstreamed or not.*
- 99 Not applicable** *The given level of government does not have responsibility for the given component (policies, curricula, teacher education or student assessment) and/or does not have responsibility for the given level or type of education. This may occur at the national level in federal countries where education is the responsibility of individual states or at the sub-national level in small countries where there is only one level of government.*

	Pre-primary	Primary and secondary	Tertiary	Non-formal education
Nationally				
Education policies, frameworks or strategic objectives				
Curricula				
Teacher education				
Student assessment				
Sub-nationally				
Education policies, frameworks or strategic objectives				
Curricula				
Teacher education				
Student assessment				

¹ GCED and ESD are mainstreamed if they or their themes and sub-themes are mentioned explicitly in relevant documents and are expected to be implemented by the relevant authorities (e.g. Ministries, regional or local education authorities), educational institutions (e.g. schools, colleges and universities) and/or education professionals (e.g. teachers and lecturers) as appropriate.

GLOBAL INDICATORS ON EDUCATION FOR SUSTAINABLE DEVELOPMENT AND GLOBAL CITIZENSHIP EDUCATION: METHODOLOGICAL NOTE

Introduction

This note describes the methodology for constructing three global indicators for the follow-up and review of Targets 4.7, 12.8 and 13.3 of the 2030 Agenda for Sustainable Development adopted by the United Nations General Assembly in September 2015 (Resolution 70/1).

The targets and indicators are:

Target 4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development

Indicator 4.7.1: The extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education and (d) student assessment.

Target 12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature

Indicator 12.8.1: The extent to which (i) global citizenship education and (ii) education for sustainable development (including climate change education) are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education and (d) student assessment.

Target 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

Indicator 13.3.1: Number of countries that have integrated mitigation, adaptation, impact reduction and early warning into primary, secondary and tertiary curricula.

The indicators measure national efforts to mainstream education for sustainable development, including climate change education, and global citizenship education, including gender equality and human rights education, into education systems at all levels of education. The indicators describe characteristics of the education system including policies, curricula, teacher education and student assessment. They do not measure the quantity or quality of education delivered or education outcomes achieved. However, they do provide a practical assessment of the requisite foundations on which quality education systems are typically based.

Building on work in 2017 and 2018 to develop a methodology to construct indicators 4.7.1 and 12.8.1, UNESCO has developed a draft set of questions (see attached) for countries to complete that is intended to meet the data requirements of both of these indicators and in addition of indicator 13.3.1.

Table 1 explains which questions are used to calculate the given components of the respective indicators.

Table 1 Questions used in the calculation of global indicators 4.7.1, 12.8.1 and 13.3.1

Indicator	Policies	Curricula	Teacher education	Student assessment
4.7.1	A2, A3, A4, E1(a)	B2, B4, B5, E1(b)	C2, C3, C4, C5, E1(c)	D2, D3, E1(d)
12.8.1	A2, A3, A4, E1(a)	B2, B4, B5, E1(b)	C2, C3, C4, C5, E1(c)	D2, D3, E1(d)
13.3.1	Not applicable	B3	Not applicable	Not applicable



The next sections describe briefly the process for constructing each of the indicators from country responses to the questionnaire.

Indicators 4.7.1 and 12.8.1

Indicators 4.7.1 and 12.8.1 are constructed in the same way despite the different emphases given in the indicator names to selected sub-themes within GCED (gender equality and human rights education) for 4.7.1 and within ESD (climate change education) for 12.8.1.

Questions are grouped into sections representing the four components of the indicators (policies, curricula, teacher education and student assessment). There are 2-4 questions in each section which contribute to the calculation of each component score. There is a fifth section ('overall') which contains one question, E1, which covers all four components. Each question within a component is given equal weight.

Question scores are based on all possible responses except 'not applicable' which are ignored. Blanks are treated as 'unknown' responses. For most questions, the remaining responses are limited to 'no = 0' and 'yes = 1'; for question E1, three responses are possible ranging from 0 (not at all) to 2 (extensively). The higher the score the greater the level of mainstreaming. Where 'unknown' or blank responses represent no more than 50% of all responses to a given question they are treated as zeros in the calculation of the question score. This is to avoid giving an unfair advantage to unknown responses by ignoring them entirely. Where the majority (i.e. more than 50%) of the individual elements of a question are blank or coded 'unknown', a country score is not calculated for the given indicator component even if there are valid answers for other questions contributing to the component score.

Each question contains multiple elements to be scored. The overall score for a question is the simple mean of the scores in the ranges 0-1 (for yes/no/unknown questions) and 0-2 (for question E1); 'not applicable' values are not used. 'Not applicable' is only an option in questions which ask for information separately at the national and sub-national levels of government. This is because in some countries only one level of government is responsible for education and therefore the other level is 'not applicable'. The score for such questions is the simple mean of the other valid scores.

Since questions that have theoretical average scores between 0-1 and between 0-2 exist in all components, the average scores for questions in the range 0-2 are standardised to fall between 0 and 1 as follows:

$$Z_{i,x} = \frac{x_i - \text{theoretical min } (x)}{\text{theoretical max } (x) - \text{theoretical min } (x)}$$

where,

$Z_{i,x}$ = the standardised score for country i to question x

x_i = the actual mean score of country i to question x

This can be simplified to $Z_{i,x} = x_i/2$

The overall component score is then calculated as the simple mean of the z-scores for country i in component c .

Example: Policies

Questions A2, A3, A4 and E1(a) are used to calculate each country's score for this component. 'Not applicable' is a possible response category in questions A3, A4 and E1. 'Unknown' is a possible response category in all questions. The component score for policies is the simple mean of the four standardised question scores ignoring, if relevant, not applicable responses.

Question A2 has 32 elements each that can be scored. Questions A3, A4 and E1(a) have 10, 16 and eight elements respectively.



Country A responds as follows:

A2: 10 elements: no = 0;
18 elements: yes = 1;
4 elements: unknown = 9 (but treated as zero in the indicator calculation).

The simple mean of the responses is $0.56 = (14 \times 0 + 18 \times 1) / 32 = 18 / 32$.

A3: 2 elements: no = 0;
3 elements: yes = 1;
5 elements: not applicable = 99 (but ignored in the indicator calculation).

The simple mean of the responses is $0.60 = (2 \times 0 + 3 \times 1) / 5 = 3 / 5$.

A4: 4 elements: no = 0;
4 elements: yes = 1;
8 elements: not applicable = 99 (but ignored in the indicator calculation).

The simple mean of the responses is $0.50 = (4 \times 0 + 4 \times 1) / 8 = 4 / 8$.

E1(a): 1 element: not at all = 0;
2 elements: partially = 1;
1 element: extensively = 2;
4 elements: not applicable = 99 (but ignored in the indicator calculation).

The simple mean of the responses is $1.00 = (1 \times 0 + 2 \times 1 + 1 \times 2) / 4 = 4 / 4$.

Since the potential score for this question ranges between 0 and 2 it is necessary to standardize the score as follows:

$$Z_{A,E1(a)} = 1/2 = 0.50.$$

The component score for policies for Country A is:

$$4.7.1(a) \text{ and } 12.8.1(a) = 0.54 = (0.56 + 0.60 + 0.50 + 0.50) / 4.$$

Indicator 13.3.1

This indicator is constructed from responses to the climate change education question B3. For each of the four components of 13.3.1 (mitigation, adaptation, impact reduction and early warning) there are four elements for which possible responses are 0 (no), 1 (yes) and 9 (unknown).

The same methodology as for indicators 4.7.1 and 12.8.1 is adopted. The overall score for each component is the simple mean of the scores. Unknown or blank responses are treated as zeros for the indicator calculation provided they represent no more than 50% of the responses (i.e. there are no more than two such responses per component).

Example: Mitigation

Country A responds as follows to the mitigation sub-component of question B3:

Pre-primary no = 0
Primary and secondary yes = 1
Tertiary yes = 1
Non-formal education unknown = 9 (but treated as zero in the indicator calculation)

The component score for mitigation for Country A is:

$$13.3.1(a) = 0.5 = (0 + 1 + 1 + 0) / 4 = 2 / 4.$$



UNESCO'S RESPONSES TO CONCERNS REGARDING THE ORIGINAL QUESTIONNAIRE AND METHODOLOGY FOR INDICATORS 4.7.1 AND 12.8.1

Commentator	Concern	Action taken
Canada, Egypt, France, Sweden and USA (IAEG-SDGs)	Prefer to replace the indicator	None. This would be a decision for the UN Statistical Commission to take based on the IAEG's first major review of the global indicator framework.
GEMR	Compare and contrast alternative reporting mechanisms	Done.
UIS	Drop link with 1974 Recommendation reporting process	Not done, but 1974 Recommendation process now compared with alternative sources. TCG will be asked to make recommendation on the preferred data source(s).
France and Germany (IAEG-SDGs), OHCHR	Self-reporting is an issue	Questions are now more factual. Only one question asks for an opinion. Self-reporting is a feature not just of the 1974 Recommendation process but also of alternative sources reviewed. However, not all respondents are government officials. The IAEG has already approved several other indicators based on self-reporting by governments.
GEMR	Use independent experts selected by UNESCO to evaluate each country and ask countries to validate the assessments	Not done.
Brazil (IAEG-SDGs), IEA, UIS	Simplify questions by asking whether or not something exists	Questions are now more direct.
IEA, UIS,	Many questions are too complex	Response categories have been reduced and most questions converted to yes/no answers.
France (IAEG-SDGs)	Questions are too limited and provide imperfect information on the indicator	Have tried to address and make questions more factual. However, it is difficult to balance sufficient breadth with simplicity.
UIS, Carolee Buckler	Transform more questions to yes/no format and reduce complexity of six-point response scales	Done for all but one question. Response categories have been reduced from six to five (of which two are unknown and not applicable).
Carolee Buckler, Robert Didham	Expand yes/no answers to provide additional information (eg on the degree to which a theme/sub-theme is reflected)	Not done. Most reviewers were in favour of simplification of responses.
Brazil, Philippines and Sweden (IAEG-SDGs)	No questions on gender equality or human rights education	Now added. Climate change education also added (for 12.8.1 and 13.3.1).



Commentator	Concern	Action taken
Robert Didham	Instead of asking about themes covered in policies and legal frameworks ask about the mandates to include GCED/ESD in curricula, design of textbooks, teacher training etc	A question on mandates has been added but the questions on themes have been retained.
Carolee Buckler	Subdivide teacher education questions into pre-service training and in-service training/continuing professional development	The first question in the teachers section is sub-divided. The others have not been sub-divided as there were concerns from other reviewers about the complexity and number of questions.
OHCHR, Carolee Buckler, Robert Didham	Simplify the open-ended questions or split them into separate questions	Will be done.
IEA, GEMR, UIS	Ask countries to provide evidence to back up their answers (eg documents, links, examples of good practice)	Will be included as part of the open-ended questions and will be used to cross-check responses to questions used for indicator calculation.
IEA, OECD, Carolee Buckler	Responses to questions on sufficiency of resources will be of poor quality	Questions dropped.
UIS	Recode response categories so that 0 = no/not at all	Done.
Carolee Buckler	Number the themes and sub-themes of GCED and ESD to make tables easier to read	Done.
Carolee Buckler	Add mathematics to list of subjects in which GCED and ESD are taught	Done.
Robert Didham	Ask questions on the types of learning approaches used in GCED/ESD and whether teachers have been trained to use these approaches	Done.
Robert Didham	Collect information on skills, attitudes and behaviours in addition to knowledge	An additional question added to the teacher education section (making two questions in total on skills etc).
UIS	Drop distinction between national and sub-national	Now appears in two questions only. Included to clarify national responsibilities for education as in the past some federal countries provided 'not applicable' answers where education is the responsibility of sub-national levels of government only.
IEA, UIS	Drop or reduce breakdown by levels of education	Levels reduced from six to four. They are retained to allow countries to respond differently for different levels of education.
IEA, OECD, Robert Didham	Clarify how countries should respond where categories are combined (eg levels of education) but responses are different for different parts of the combined categories	Response categories have been reduced and additional guidance added.



Commentator	Concern	Action taken
Philippines and Sweden (IAEG-SDGs), GEMR, UIS, Carolee Buckler	Need clearer definitions of key terms like 'global citizenship education'	Glossary included.
OHCHR, Danish Institute for Human Rights	Provided clarifications of definitions of human rights education and proposed the sub-themes of HRE and gender equality	Adopted.
Philippines and Sweden (IAEG)	Recommend cognitive testing of revised questionnaire	Not done but would like to pilot the questionnaire.
Germany (IAEG)	Would like to see a more explicit methodology that explains how questions are assigned to the dashboard	Some adjustments have been made to the methodology and a methodology sheet prepared setting out exactly how the components will be calculated.
Germany (IAEG)	No countries were involved in the data production	Data were provided by national governments (but not statisticians). The link with the global indicators was mentioned in the 2016 consultation exercise but will be made more explicit for the 2020 round.
Germany (IAEG)	There is a dashboard of indicators rather than a single indicator	It was a conscious choice <u>not</u> to combine the components into a composite index as it would be difficult to interpret the overall score. The IAEG has expressed reservations in general about the use of composite indices.
OECD, Robert Didham	Reconsider use of 'not applicable' to avoid giving unfair advantage to some countries.	Dropped except in three questions which ask for information at the national and sub-national levels separately. In some countries, education is the responsibility of only one level of government (so 'not applicable' would be a valid answer for the other level of government).
Danish Institute for Human Rights	Reconsider treatment of 'unknown' when calculating the indicators.	Done, unknowns and blanks are treated as zeros (equivalent to no or not at all) unless they represent more than 50% of all responses to a question. In the latter case, the question score and the component scores are not calculated.
France, Philippines, Sweden (IAEG) and TCG WG ID	The descriptions of the indicator reporting categories need to be clarified	This will be done. The exact descriptions have not yet been decided but they will <u>not</u> be 'making strong progress' etc.
TCG Working Group on Indicator Development (TCG WG ID), GEMR	Countries should be consulted about the results before they are published	This was done in 2018 and will be done in the future too. UNESCO consulted the 82 countries for which data were available in June 2018 (the data providers) and the UIS consulted all countries in July 2018 as part of its SDG 4 validation exercise (SDG 4 focal points).