



United Nations  
Educational, Scientific and  
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UNESCO  
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GLOBAL  
ALLIANCE  
TO MONITOR  
LEARNING

# Global Alliance to Monitor Learning (GAML): Overview and glossary

GAML4/REF/4



## What is GAML?

The Global Alliance to Monitor Learning (GAML) is an initiative to support national strategies for measuring learning and enable international reporting. Led by the UNESCO Institute for Statistics (UIS), GAML brings together UN member states, international technical expertise, and a full range of implementation partners—donors, civil society, UN agencies, and the private sector—to improve learning assessment globally. Through participation in GAML, all interested stakeholders are invited to help influence the monitoring of learning outcomes for Sustainable Development Goal (SDG) 4 and the Education 2030 goals.

GAML adds value to UN member states and the global education community by:

- Balancing data needs of countries and accuracy needed for global reporting;
- Engaging stakeholders through various pathways of participation by national governments, civil society, teachers' organizations, donors, UN agencies, and academia; and
- Providing actionable guidance to countries to improve the monitoring of learning.

## What is GAML trying to achieve?

GAML has the following objectives:

1. Oversee the definition of indicators and development of tools and methodologies to measure progress toward SDG 4;
2. Establish and promote the implementation of common guidelines and best practices of learning assessment;
3. Develop and carry out a coordinated programme of methodological work to underpin the development of improved methods and practices in learning assessment, including the use of data for effective policy-making; and
4. Strengthen learning assessment capacity in countries and build a sustainable knowledge base at the international and national levels.

GAML seeks to extend coverage of learning assessments to all UN member states, and improve how data are used. Ultimately, the goal of GAML is to support national strategies for learning assessment and to ensure international reporting on SDG 4 by all UN member states. GAML's theory of change is that better data and regular use of data will lead to improved decision-making, educational systems, and learning outcomes.

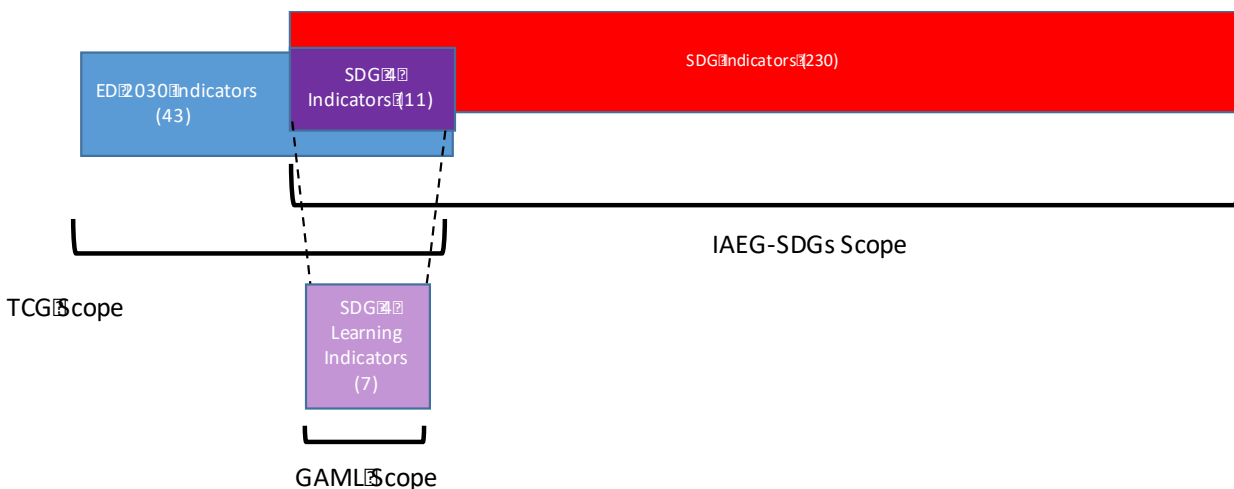
## How is GAML related to Education 2030 and the Sustainable Development Goals?

GAML is embedded in the UN and UNESCO processes to develop indicators for the SDGs and Education 2030 Framework for Action. Specifically, GAML is working to build consensus and capacity for the subset of SDGs focused on learning outcomes, which have not previously been monitored at the global level.

Figure 1 shows the GAML mandate in relation to the Education 2030 Technical Cooperation Group (TCG) and the Inter-Agency Expert Group on SDG Indicators (IAEG-SDGs). The TCG is responsible for building consensus on indicators for the 43 Education 2030 Thematic Indicators, which include the 11 SDG 4 indicators. The IAEG-SDGs is the custodian of the global indicator framework for all SDGs. Within the 11 SDG 4 indicators, UIS is the custodian agency for 9 indicators, meaning it is responsible for the methodological development and data reporting.<sup>1</sup>

The UIS convened GAML to foster collaboration across all of the SDG 4 indicators that pertain to learning outcomes, including those for which the UIS is not the custodian agency, so that learning outcomes from early childhood through adulthood can be integrated and reported on similar scales.<sup>2</sup>

**Figure 1. GAML Within the SDG Data Governance Structure**



<sup>1</sup> UNICEF is the custodian agency for 4.2.1, the International Telecommunications Union (ITU) is co-custodian agency for 4.4.1 along with UIS, and OECD is the custodian agency for 4.b.1.

<sup>2</sup> The learning indicators included in GAML's mandate are: 4.1.1, 4.1.2, 4.2.1, 4.4.2, 4.6.1, 4.7.4, and 4.7.5.

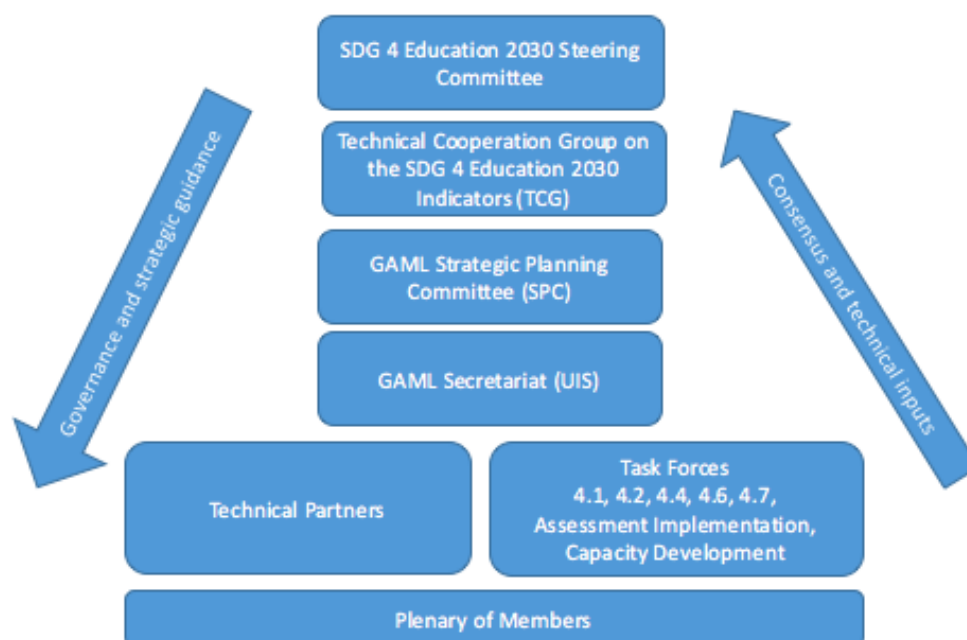
The IAEG-SDGs has established a three-tier classification system for all SDG indicators. The goal of GAML is to bring the education indicators to Tier I status, meaning there is an internationally established methodology and coverage is expanded to more than half of the countries in the world.<sup>3</sup>

## How is GAML governed?

GAML is organized with a [strong and simple governance structure](#) (see **Figure 2**):

- A Strategic Planning Committee to provide management oversight and guidance;
- A management Secretariat (hosted by UIS) that commissions papers and ensures delivery in accordance with the results framework and corresponding work plan;
- A series of thematic task forces comprised of technical partners and stakeholders working together to oversee and review the development of tools and provide recommendations to the Secretariat; and
- A plenary of members, including UN member states, that discusses and endorses solutions.

**Figure 2. GAML Governance Structure**



<sup>3</sup> Currently, the SDG 4 indicators focused on learning outcomes have a Tier II or Tier III status.



Technical inputs and task force recommendations are discussed and endorsed during meetings of GAML. The GAML plenary is a unique forum for multiple stakeholders to engage in technical discussions on the tools developed by technical partners and recommendations brought forward by the task forces. Based on these discussions, the Secretariat proposes solutions for SDG 4 indicator measurement to the TCG. The TCG endorses the education thematic indicators and agrees on methodological approaches to recommend to the Education 2030 Steering Committee. The Steering Committee then takes the technical recommendations from the TCG and embeds them into SDG 4 policies and strategies.

## What will GAML produce?

The products and supports generated by GAML are organized around four key questions:

1. **What and who to measure?** Developing a strong conceptual framework that includes the content and the population covered by the assessments.
2. **How to measure?** Defining a methodological framework to support rigorous data collection.
3. **How to analyse?** Determining which approaches to data analysis to use.
4. **How to report?** Developing a reporting framework that allows results to be compared internationally.

The GAML Secretariat, task forces, and technical partners are developing products and resources to support national capacity development and global monitoring. As reading and mathematics are the domains most frequently measured by countries already, GAML has begun its work by focusing on indicator 4.1.1.<sup>4</sup> Between May 2016 and December 2018, GAML will produce 16 tools and resources to help countries answer these questions for SDG indicator 4.1 alone. **Annex A** shows how the components of GAML's approach fit together to support alignment in reporting against 4.1.1, and broader capacity development support.

For SDG targets 4.2, 4.4, and 4.6, a shortened version of this process is planned, which includes developing a global common framework, defining proficiency levels, and producing a methodology paper on UIS reporting for the target. The task force for Target 4.7 will launch in September 2017. GAML's major contributions are summarized below.

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<sup>4</sup>Indicator 4.1.1: Proportion of children and young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex.



## **Global Common Framework**

A Global Common Framework is being developed to identify a list of competencies that will be assessed across all countries. To develop this framework, GAML will first produce a coding scheme, or a way of categorizing the skills and competencies in an assessment. This will be used to review and create a database of existing learning assessment frameworks to determine areas of commonality.

## **Principles of Good Practice in Learning Assessment**

The Principles of Good Practice in Learning Assessment (GP-LA) describes how to develop and implement strong large-scale assessment programs so that the data can be used for education system monitoring and evidence-based education policy. The GP-LA provides principles that are relevant to the various large-scale learning assessment activities being undertaken throughout the world, including cross-national assessments and national assessments.

## **UIS Reporting Scales**

The UIS Reporting Scales are numerical scales and associated substantive descriptions that explain developing levels of proficiency in the learning domains identified in the SDG indicator framework. For example, the substantive descriptions will provide an increasingly complex set of skills for 'reading' and 'mathematics' in indicator 4.1.1. Particular locations on the UIS Reporting Scales will be established as benchmarks, to enable common global definitions of terms like "minimum proficiency" and "developmentally on track."

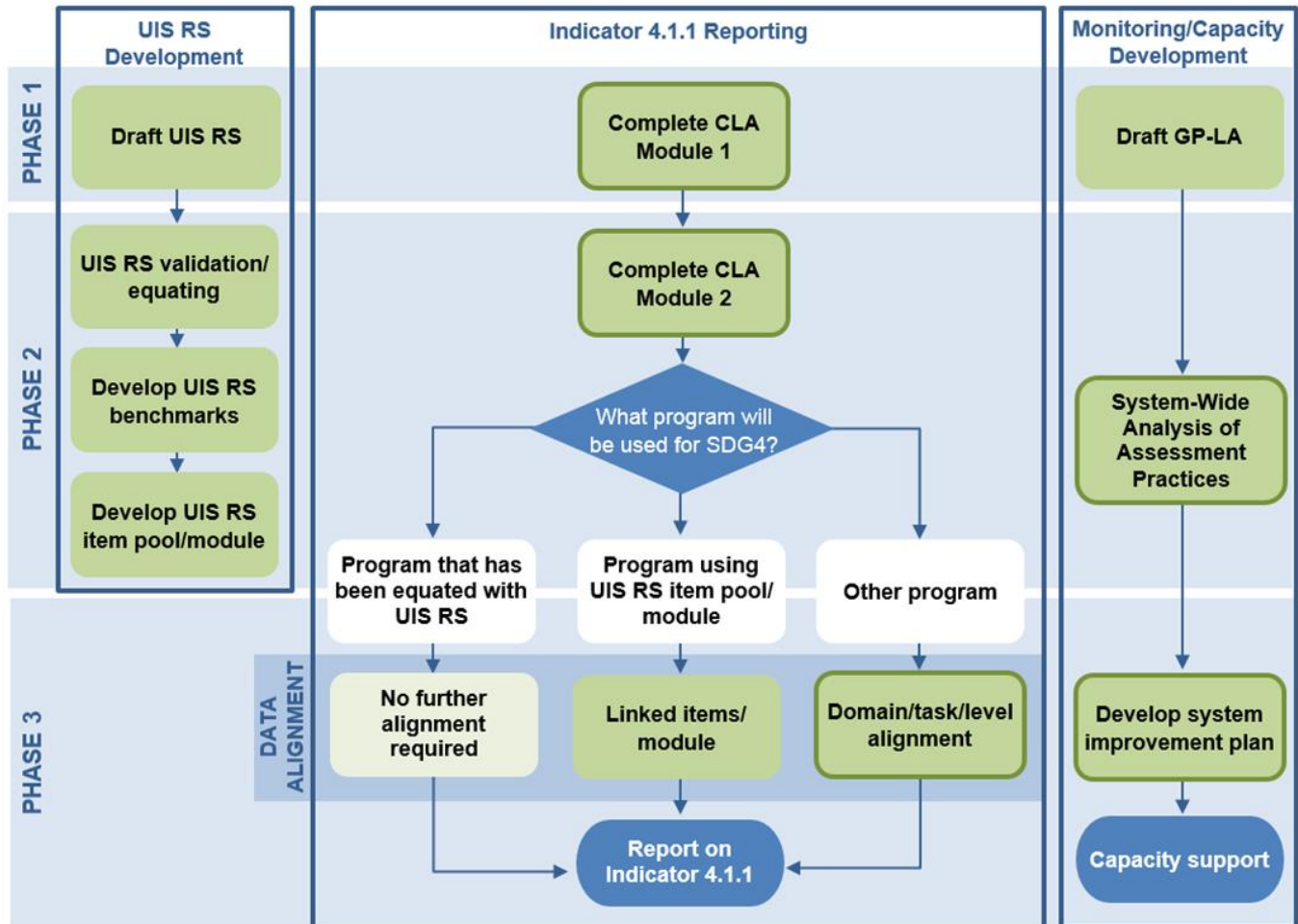
## **Analysis of the Quality of Evaluation and Assessment Systems**

GAML will design a process to guide education system leaders and stakeholders through analysing the quality of their evaluation and assessment systems, and how the results are used in policy and practice. The findings will help identify capacity needs and inform improvement plans for individual education systems to address these needs.

Together, this suite of initiatives will help education systems to consistently report against the SDG learning indicators and pursue broader improvements to assessment and evaluation systems, which will ultimately drive improvement in learning and skills.



## Annex A. GAML's Approach to SDG 4.1.1 Reporting



*Dark green border = process led by individual education systems*



## Annex B. GAML Glossary

Term	Description
Assessment agencies	For-profit companies and not-for-profit organizations that develop and/or administer learning assessments as part of their business.
Assessment framework	A document that describes a country's overall approach to assessment, including what constructs will be assessed and, often, what populations will be assessed.
Benchmark	A standard or point of reference against which learning outcomes can be compared.
Capacity development	The process through which countries obtain, strengthen and maintain the capabilities to set and achieve their own development objectives over time, in this context related to learning assessment.
Catalogue of Learning Assessment	A UIS database that provides descriptive standardised and comparable information on public examinations, national and international assessments in primary and lower secondary education programmes in countries across the world. The Catalogue serves as a resource for countries interested in developing a national assessment, improving their overall system, or joining a regional or international initiative.
Code of practices	Provides detailed information on how to achieve the standards required for designing and implementing assessments.
Construct	An attribute of a person that is intended to be measured.
Core background questionnaire	A common set of items to gather data on the characteristics of the learners being assessed. It can be used to analyze the equity dimensions of learning.
Cross-national assessments	Assessments conducted in more than one country. The results may or may not be comparable.
Custodian agency	An agency that has responsibility over methodological development and data reporting for an SDG indicator.
Domain	A category of skills or competencies.
Data quality	The degree to which data serve the purpose for which they were designed.
Developmentally on track	A child who meets agreed-upon milestones for learning and development. The definition of "developmentally on track" is not yet agreed upon at the global level.
Data Quality Assessment Framework (DQAF)	A framework for assessing the quality of data for any sector. Ed-DQAF provides a framework specific to the education sector.
Education 2030 Framework for Action	A guide to the implementation of SDG 4, agreed upon at the World Education Forum in Incheon, Republic of Korea, in May 2015.





Term	Description
Education 2030 Steering Committee	The Global Education 2030 Agenda Steering Committee is convened annually and aims to ensure coordinated support to UN member states and partners to achieve SDG 4 and the education-related targets in other goals of the 2030 Agenda. The committee is composed of 38 members representing a majority from member states, as well as co-convening agencies (UNICEF, UNDP, UNFPA, UNHCR, UNWOMEN, ILO, World Bank), Organisation for Economic Cooperation and Development, Global Partnership for Education, regional organizations, teacher organizations and civil society networks. All members are designated by their respective constituencies, represent them and are accountable to them.
Functional literacy	Being able to read and write independently so as to enable full participation in society.
Functional numeracy	The ability to use numbers and other mathematical concepts at a level of competence that enables full participation in social and economic life.
Global Common Framework	A universal set of skills and competencies for global reporting. (Note: This was referred to as Global Content Reference Framework in previous GAML documents.)
Global indicator	A way of measuring progress toward meeting a given SDG target that is to be measured by all countries using an internationally comparable methodology. There are 11 global indicators for SDG 4 on education. Global indicators were endorsed by the UN Statistical Commission (UNSC) upon a proposal of the Inter-Agency and Expert Group on the Sustainable Development Goal Indicators (IAEG-SDGs) and are used to monitor the 17 SDGs and 169 targets.
Harmonization methodology	A way of combining results from different assessments to report on a common scale.
Inter-Agency Expert Group on SDG Indicators (IAEG-SDGs)	The IAEG-SDGs is the custodian of the global indicator framework for all SDGs. The IAEG coordinates the development of the official indicator framework for the goals and targets of the 2030 Agenda at the global level and supports its implementation. It is composed of representatives of member states from all regions and includes regional and international agencies as observers.
Internationally comparable assessments	Assessments that measure learning in such a way as to enable comparison across the countries who have participated, such as Trends in International Mathematics and Science Study (TIMSS); Progress in International Reading Literacy Study (PIRLS); and Programme for International Student Assessment (PISA); Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) and Programme d'Analyse des Systèmes Educatifs de la CONFEMEN (PASEC) in Sub-Saharan Africa; the Laboratorio Latinoamericano de Evaluación de la Calidad de la Educación (LLECE) in Latin America; the Pacific Islands Literacy and Numeracy Assessment (PILNA); the Literacy and Numeracy Assessment (LaNA), a simplified version of TIMSS and PIRLS; and the Southeast Asia Primary Learning Metric (SEA-PLM) in the East Asia/Pacific region.



Term	Description
Item bank	A set of assessment questions from which developers can draw as they design assessments.
Large-scale assessment	Learning assessments intended to provide information on overall performance levels in the education system.
Learning domain reference list	A set of skill and competency categories intended to be common across national assessment systems.
Learning metric	A means of reporting on what children, youth and adults know.
Learning Progression Explorer (LPE)	An online tool that enables users to explore a related set of progressively more complex skills.
Manual of Good Practice	Standards and guidelines on good practices for learning assessment, a resource available to countries planning learning assessments.
Metadata	Data that provides information on other data; in this case, information on the assessment data.
Minimum proficiency level (MPL)	The minimum level of learning that can be considered to meet the criteria for a given indicator.
National assessment	Usually a sample-based assessment of learning outcomes used to inform policy. This is different from national examinations, which are used to determine the educational path for individual students.
Regional assessments	Cross-national assessments that are comparable at the regional level. These include the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) and Programme d'Analyse des Systèmes Educatifs de la CONFEMEN (PASEC) in Sub-Saharan Africa, the Laboratorio Latinoamericano de Evaluación de la Calidad de la Educación (LLECE) in Latin America, the Pacific Islands Literacy and Numeracy Assessment (PILNA), and the Southeast Asia Primary Learning Metric (SEA-PLM) in the East Asia/Pacific region.
Sample/representative sample	A sample is a small part of a population. A representative sample is one in which the small part accurately represents the characteristics of the whole population.
Strategic Planning Committee (SPC)	A multi-stakeholder group that provides strategic oversight to GAML.
Technical Cooperation Group (TCG) for SDG 4 – Education 2030 Indicators	The TCG brings together education experts from governments, multilateral agencies and civil society. The TCG works on global and thematic indicators and informs both the SDG-Education 2030 Steering Committee (SC) and the IAEG-SDGs with technical solutions that have been jointly developed and agreed upon by experts in various fields of education measurement and from all constituents of the global education community, including member states, multilateral agencies and civil society groups. The TCG is co-chaired by the UNESCO Institute for Statistics (UIS) and UNESCO Education Sector's Division of Education 2030 Support and Coordination (UNESCO ED/ESC).



Term	Description
Thematic indicator	A set of globally comparable indicators specific to a sector. These indicators are designed to track the education targets more comprehensively across countries and include the global reporting indicators as a subset. There are 43 thematic indicators for education, which include the 11 SDG indicators and together comprise the Education 2030 indicator framework.
Thematic task forces	A series of thematic task forces comprised of technical partners and stakeholders are working together to oversee and review the development of tools for GAML and provide key technical inputs into the indicator recommendations.
Tier I Indicator (IAEG-SDGs Classification)	To facilitate the implementation of the global indicator framework, all indicators are classified by the IAEG-SDGs into three tiers on the basis of their level of methodological development and the availability of data at the global level. Tier I classification specifies that the indicator is conceptually clear, has an internationally established methodology and standards available, and data are regularly produced by countries for at least 50 percent of countries and of the population in every region where the indicator is relevant.
Tier II Indicator (IAEG-SDGs Classification)	Tier II classification specifies that the indicator is conceptually clear, has an internationally established methodology and standards available, but data are not regularly produced by countries.
Tier III Indicator (IAEG-SDGs Classification)	Tier III classification specifies that no internationally established methodology or standards are yet available for the indicator, but methodology/standards are being (or will be) developed or tested.
UIS Reporting Scale	A scale of progressively more complex learning competencies for a given domain. Current UIS Reporting Scales are under development in mathematics and reading.
UNESCO ED/ESC	UNESCO Education Sector's Division of Education 2030 Support and Coordination
Validity	<p>The degree to which an assessment measures what it is intended to measure. Types of validity include:</p> <ul style="list-style-type: none"> <li>• Internal validity: The degree to which the assessment was conducted according to accepted practices.</li> <li>• External validity: The extent to which the results of a study can be generalized to other situations and other people.</li> </ul>

