



United Nations
Educational, Scientific and
Cultural Organization



UNESCO
INSTITUTE
FOR
STATISTICS

Global Alliance to Monitor Learning (GAML): Concept paper



Table of contents

1.	Introduction	3
2.	The political economy of implementing the global scale and the global metric.....	5
3.	The Global Alliance to Monitor Learning (GAML).....	7
4.	GAML strategic actions.....	8
4.1	Methodological research for indicators and global harmonisation	8
4.2	Standards for data quality and global reporting.....	9
4.3	Sustainability of learning assessments in Member States	9
4.3.1	Technical capacity development.....	9
4.3.2	Data literacy and data for evidence-based policymaking	10
5.	Governance.....	11



1. Introduction

With Sustainable Development Goal 4 (SDG 4) for education, the international community has agreed on an ambitious agenda to: “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”. To fulfil these commitments, accurate measures of learning outcomes are essential to track progress towards education targets.

In recent years, there has been significant growth and improvement in the field of learning assessments across the world. However, many countries are still unable to sustain long-term, high-quality learning assessments that are aligned with international standards. The fragmented nature of various initiatives, which are often insufficiently coordinated and not harmonised in terms of standards, creates friction, duplication and inefficiencies in the system overall. A comprehensive conceptual and institutional framework at the global level could support and coordinate countries’ efforts to measure learning.

The strategy to improve learning assessments within the new agenda calls for increased efforts on methodological innovation, technical assistance and capacity building, funding mobilisation and the definition and assessment of quality standards and practices across initiatives. All of these factors are essential to produce quality data with sufficient coverage, while seizing the potential for economies of scale and scope in the implementation of those actions and maximising the comparative advantages of different players.

The list of the SDG 4 targets related to learning outcomes and their underlying global and thematic indicators is presented in **Table 1**.

**Table 1. SDG 4 targets related to learning outcomes**

Target	Global		Thematic Indicators
<i>4.1. By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes</i>	√	4.1.1	Proportion of children and young people (a) in Grade 2 or 3; (b) at the end of primary education; and (c) at the end of lower secondary education achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex
		4.1.2	Administration of a nationally-representative learning assessment (a) in Grade 2 or 3; (b) at the end of primary education; and (c) at the end of lower secondary education
<i>4.2. By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education</i>	√	4.2.1	Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex
<i>4.4. By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship</i>		4.4.2	Percentage of youth/adults who have achieved at least a minimum level of proficiency in digital literacy skills
<i>4.6. By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy</i>	√	4.6.1	Proportion of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex
<i>4.7. By 2030, ensure all learners acquire 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</i>		4.7.4	Percentage of students by age group (or education level) showing adequate understanding of issues relating to global citizenship and sustainability
		4.7.5	Percentage of 15-year-old students showing proficiency in knowledge of environmental science and geoscience



2. The political economy of implementing the global scale and the global metric

Assessments can be used by governments to channel education funding in a cost-efficient and equity-oriented way. They can serve to track curriculum implementation and identify correlates of learning. Assessments also provide useful information for donors. Overall, increased accountability means better governance.

However, there can be much controversy surrounding assessments, related not only to their implementation but also to the resulting data dissemination, use and analysis. Concerns with poor administration and use of assessments include teaching to test, reducing the scope of the curriculum, pay for performance and the usefulness of the results.

With the SDG 4-Education 2030 Agenda, the need for comparability of learning assessment results at a global level adds a new dimension about the risk and utility of assessments. For example, governments may worry how their country will fare at the global level and assessments will need to address cultural bias and contexts.

For reform to take place, politicians, teachers' unions, education administrators, public officials and civil society organizations need to come together to implement sound procedures. **Table 2** summarises the main stakeholders in learning assessments and their potential interests.

Table 2. Stakeholders and learning assessment reporting

Stakeholders	Stakeholders' interests and benefits
Testing agencies (IEA data processing center, Analyses and Reporting unit, Pearson, ETS, ACER)	Implementing agencies of international assessments, like IEA, ETS, ACER, etc., will be the potential beneficiary in the SDG learning agenda as learning outcome data will be in demand. However, harmonisation would demand extra efforts.
Regional assessment bodies (LLECE, PASEC, SACMEQ, SEAPLM, PILNA)	Regional assessment organizations could reinforce their role in liaising with participating countries and helping countries build technical capacity in learning assessments that are culturally appropriate.
Countries	The countries which participate in the global initiative would expand their national capacity to generate and use data as well as share national practices. The principal central government actors in educational reform are the Prime Minister's or Cabinet Chief's Office, the Presidency, the Ministries of Education and different technical institutes (notably the ministries of evaluation and assessment) in a country. Indirectly, the institutions



	providing teacher training and the technical and professional schools will have an impact. Other relevant ministries, like the Ministries of Finance and Planning interested in cost efficiency, accountability and potential investors, will be in favour of comparability.
General public (teachers and union, parents, private industry, NGOs)	Citizens in general will gain by having an educated and skilled population in terms of literacy, civic participation and productivity, as well as indicators in general related to the quality of services and government accountability. Civil society organizations and other actors dedicated to education and/or social affairs and social welfare, including political parties, professional and academic associations and unions, and student organizations, play some role in defining public attitudes towards the formulation of education policy. Teachers and unions might feel threatened by assessments in general due to comparability and the possibility of being blamed for poor student performance or assessment results, which could be linked to promotion or sanctions. Professional and academic associations will likely be the most involved in the initiatives through research and advocacy. The private sector has been an actor in defining primary/secondary education global metrics.
Donors	Foreign economic and technical assistance plays a massive role in this policy reform, both in the process that created it and in its implementation. They could support countries and regional cross-national assessments by funding participation, technical support and/or dissemination efforts.



3. The Global Alliance to Monitor Learning (GAML)

The SDG 4-Education 2030 agenda prioritises some areas that were absent in previous global commitments to education. The new agenda has a renewed focus on equity and inclusion, as well as on the need to increase and expand the access to education further than primary education or basic levels.

With a focus on quality education leading to effective learning outcomes, SDG 4 places great importance on the development of basic literacy and job-relevant skills of a population. In order to monitor progress towards the goals, countries will need to produce data on learning outcomes and the knowledge and skills attained by a population, which can pose measurement challenges in accurately capturing the correct information and comparing it internationally.

The Education 2030 Framework for Action (EFA) clearly ratifies the mandate of the UNESCO Institute for Statistics (UIS) to remain “the official source of cross-nationally comparable data on education”. Moreover, it also proposes that: “In addition to collecting data, the UIS will work with partners to develop new indicators, statistical approaches and monitoring tools to better assess progress across the targets related to UNESCO’s mandate, working in coordination with the Education 2030 Steering Committee”¹.

In line with this mandate and to meet the challenge of setting in place a framework to measure learning outcomes, the UIS has established the Global Alliance to Monitor Learning (GAML), an institutional platform to oversee the coordination of efforts to measure learning and the harmonisation of standards for measuring learning.

While cognizant of political and institutional realities, GAML will also need technical and practical guidance. The criteria underlying the formation and housing of the group should include impartiality and credibility among peers; technical expertise in cross-cutting issues in the area of learning assessment; and broad geographic and inter-sectoral representation.

This institutional framework, under the aegis of a United Nations Agency and with partners that are not part of the UN system, will provide an opportunity to mainstream learning assessment within the larger data effort and foster integration with other national data sources.

GAML has the following objectives:

1. Overseeing the definition of indicators and development of tools and methodologies to measure progress toward SDG 4;
2. Establishing and promoting the implementation of common guidelines and best practices on learning assessment;

¹ Paragraph 100, Education 2030 EFA.



3. Developing and carrying out a coordinated programme of methodological work to underpin the development of improved methods and practices in learning assessment, including the use of data; and
4. Strengthening the sustainability of the implementation of learning assessment initiatives in countries.

4. GAML strategic actions

Guided by its [theory of change](#), GAML has a systematic, long-term programme of methodological work to produce guidelines in a number of areas, including data collection, data capture, data editing, statistical disclosure control and data quality assessment.

4.1. Methodological research for indicators and global harmonisation

One of the first tasks for GAML is to provide concrete solutions by creating a platform to develop the common measurement framework for SDG 4. In particular, GAML will support the development and monitoring of the proposed global and thematic indicators by:

- Developing a strategy to measure indicators related to learning outcomes, including a framework for implementation and the potential use of proxy and placeholder indicators;
- For each of the learning domains that is mentioned in the SDG 4 targets, developing a Global Common Content Framework for Reference (GCCFR) that describes substantively how learning progresses within the domain;
- For each of the learning domains that is mentioned in the SDG 4 targets, developing a learning metric that can be used to report learning levels in an informative and internationally-comparable way; and
- Setting a research agenda and supporting and disseminating research relevant to the GAML mission, including:
 - Facilitating research on methodologies and technological innovation related to learning and database access/usability;
 - Generating long-term strategic guidelines about information use; and
 - Supporting research and advocacy about the need to finance studies on how to improve learning.



4.2. Standards for data quality and global reporting

There is a clear need for new methodological standards, instruments and best practices in measuring learning outcomes. Clearly-defined standards will ultimately lead to greater harmonisation and investment in data by reducing transaction costs, enhancing both the quality and international comparability of education data in general and learning assessment data in particular.

Consequently, quality processes are needed which are being addressed by GAML through three products:

- a. Mapping the landscape and understanding assessment and monitoring systems;
- b. Good Practices for Learning Assessments; and
- c. Quality Assessment Framework.

4.3. Sustainability of learning assessments in Member States

4.3.1. Technical capacity development

To strengthen learning assessment capacity and build a sustainable knowledge base at the international and national levels, GAML focuses on three main areas: capacity-development, communication and data literacy, and funding.

Support for learning assessments should not only aim to fill gaps in data and improve data quality but also ensure that recipient organizations sustain their survey programmes or substitute surveys with data from administrative or other sources as appropriate. To date, there has been little effort to put in place a long-term vision for capacity building on learning assessments in developing countries.

Currently, no global player is taking the lead in the provision of capacity-building services for learning assessments. This is not the case in other areas, such as household surveys, where there are dedicated programmes to address gaps in country-level capacities related to survey design and data collection.² International learning assessment agencies have considerable experience and could help provide technical advice at a relatively large scale. The challenge lies in coordinating these efforts.

In addition, efforts are needed at the global level to better integrate learning assessment data in national strategies of data collection by establishing sustainable capacity, especially in low-income countries; fostering South-South cooperation; and strengthening educational information systems.

New approaches to capacity development in the technical aspects of learning assessments need to be developed. These approaches should leverage the power of the Internet and new learning media, because using e-learning and other remotely administered training tools can lower costs and provide standard curricula.

² For example, the National Household Survey Capacity Programme, the Demographic and Health Survey, the Living Standards Measurement Study and the Multiple Indicator Cluster Survey.



The agencies that implement learning assessments must also build capacity in the use of the data. Facilitating peer-to-peer conversations and conducting case studies will enable different agencies to learn how data have actually been used to improve learning.

By creating and strengthening regional or sub-regional hubs, GAML will produce a critical mass of qualified statisticians and practitioners of learning assessments by taking advantage of economies of scale in training and the provision of technical assistance.

Concretely, in the area of capacity development, GAML will support developing countries in their efforts to build sustainable learning assessment systems that inform policy and programmes at the country level, including facilitating national capacity-development plans.

4.3.2 Data literacy and data for evidence-based policymaking

Data-driven decisionmaking is a continuum or an iterative process in which data are transformed into information and then actionable knowledge. Data are virtually meaningless in their raw state. Context enables data to be transformed into information and gives meaning to the numbers. The information is then transformed into knowledge, which can be used to make or implement a decision with an outcome that can be monitored. The iterative nature comes into play when users determine the need to return to an earlier part of the process to collect more data or re-analyse existing data. Data-driven decisionmaking focuses on the identification of a problem, seeking a solution using data or evidence, monitoring the ramifications of the decision, and determining what to do next.

This process becomes even more complicated with the use of different kinds of assessment data, their respective levels of utility, and the interpretation of results. System-level/national, summative assessment data are the most contentious. The overarching question is the extent to which they are a valid indicator for instructional decisionmaking. Teachers often express the perception that the results from system-level tests are too far removed from classroom practice, arrive too late and often lack the adequate curricular alignment to be of use in informing instructional practice. In short, the tests are not sufficiently aligned to curricula, and the resulting data are not well aligned for instructional validity.

An additional caveat concerns the meaning and uses of data. Data needs are role-based, meaning different people need different data depending on their role within the education system. Teachers need different data from their principals, who need different data from their superintendents. In addition, the same data may have different uses and interpretations depending on the role of the educator.



5. Governance

GAML is organized with a strong and simple [governance structure](#): a Strategic Planning Committee; a management Secretariat (UIS) that commission papers and ensures delivery; Task Forces where partners and stakeholders participate to guide the technical work and support the Secretariat; and a plenary of members that discuss and endorse solutions.

The [result framework](#) covers two basic objectives: to support national strategies for learning assessments and to ensure international reporting on the SDGs by all UN Member States.