Global Alliance to Monitor Learning Theory of Change

International education data as a lever for change

This paper presents the Theory of Change for the Global Alliance to Monitor Learning (GAML). As illustrated in the attached figure, the Theory of Change clearly defines the objectives of GAML and the roles it plays to achieve them. This involves the use of levers on the global and national levels to improve data production and use of information by all stakeholders in order to produce better learning outcomes, better educational indicators, and more efficient use of resources. The principal hypothesis is that better data and regular use of the information will create a culture of data use that will lead to improved decision-making, educational systems and outcomes.

Objectives of GAML

GAML has four main goals: to imbed data use into policy making in order to improve learning and efficiency, to ensure sustainability of learning assessment capacity of member states, to reduce transaction costs with strategic and technical global guidance, and to integrate learning assessments as part of a solid comprehensive education information system.

Ultimately, the objective is to support national strategies for learning assessment and to ensure international reporting on the SDGs by all UN member states. The rationale behind SDG monitoring is that it would serve to make better decisions and improve education systems and learning.

Activities to accelerate change

To serve these goals GAML includes roles in three key areas:

Data production: Harmonized and systematic design for data capture of learning assessment, administrative and household data leads to data that are transformed into information at all levels.

Infrastructure: Financial, physical and human resources with adequate capacity, ensure service delivery, rational allocation and efficient use of resources, use of technology.

Information Use: This consumable information can be further analyzed, understood, and used by skilled decision-makers who take and promote evidence-based actions. With a strong culture of data use, the stage is set to improve system outcomes based on the effective use of the information by all stakeholders, including parents, teachers and principals.

Levers or contributing factors for change

The Theory of Change presents the levers at the global level in the form of guidelines, protocols and standards for data terminology and exchange that can be widely implemented at country, regional and global levels.

When these levers are acted upon, they improve and intensify data production and information use, generating momentum for data use. The synergy of levers can further amplify their impact, enabling evidence-based decisions that drive learning levels and educational system performance.

The presence of these levers can also lead to a better environment for the entire data cycle, which requires sufficient legislation; policy and compliance; services and applications; leadership and governance; strategy and investment; standards and interoperability; infrastructure.

Knowledge sharing is key. Therefore, GAML includes a series of activities to build in-service capacity for data use (e.g., data analytics, data management, using data for project planning/service delivery, etc.) for those involved in assessments as well as decision-makers and planners, who need specific skills to understand and use the results effectively. In short, it is designed to transform data into information to feed decision-making at all levels.

At the country level, the levers take different forms but ultimately involve transparent performance metrics to guide policymakers and promote data use at every level of decision-making. In particular, the levers involve national legislation to create an enabling environment (e.g., infrastructure, privacy and security policies, and inter-ministerial data sharing and exchange); fostering integrated processes to develop evidence-based policies across ministries; and aligning national policy with best practices in global data use.

Achieving SDG 4

The GAML Theory of Change shows how global and national levers of change will lead to better data production and enhanced use of information to improve the performance of education systems and the learning outcomes of children and youth.

The list of the SDG 4 learning outcome related targets and underlying indicators is presented in the table below:

Target	Global	Thematic Indicators	
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	√	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
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	√	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
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		4.4.2	Percentage of youth/adults who have achieved at least a minimum level of proficiency in digital literacy skills
4.6. By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy	√	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

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	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

This will be achieved through GAML helping countries use the data to:

- Identify the areas (e.g. geographical location, learning domain, minority groups, school resources) that need attention;
- Improve students' learning through targeted pedagogical approaches;
- Increase parental involvement in education through easy-to-understand accessible information;
- Improve teachers' effectiveness through better training and practices;
- Identify relevant resources (materials and aids) and appropriate practices in classroom teaching;
- Improve school innovation and leadership in learning.

WHAT ARE THE GAML GOALS?

Embed data use into policy making to improve learning and efficiency

Ensure sustainability of LA capacity of member states by setting expectations on capacity building and funding needs

Reduce transaction costs with strategic and technical global guidance

Integrate LA as part of a solid comprehensive education information system

HOW CAN THE GOALS BE ACHIEVED?

Infrastructure and Sustainability: Establish international code of practices; pooled funding, methodologies and communication

Data production: Data warehouse and knowledge sharing platform

Information use: Information analyzed, understood, and used by decision-makers to promote evidence-based actions

WHAT ARE THE GLOBAL LEVERS FOR CHANGE?

Common language: guidelines, protocols and standards for data terminology

Momentum for data use: better environment for data cycle

Knowledge sharing: transform data into information to feed decision-making at all levels

WHAT ARE THE NATIONAL LEVERS FOR CHANGE?

Transparent performance metrics to guide policymakers

National legislation to create enabling environment

Foster integrated processes to develop evidence-based policies

Effective use of data

WHAT IS THE LONG-TERM IMPACT ON EDUCATION SYSTEMS?

Improved education system results

Increased efficiency, transparency, and accountability

Improved monitoring for policy-making

Improve learning

HOW DOES GAML SUPPORT STRATEGIC EDUCATION GOALS?

SDG 4
Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all