

SUMMARY

Deciphering the data: how to move forward in translating learning assessments into actions for educational improvement?

Latin American Laboratory for the Evaluation of the Quality of Education (LLECE)

The Latin American Laboratory for Assessment of the Quality of Education (LLECE) was created in 1994. Led by UNESCO's Regional Bureau of Education for Latin America and the Caribbean in Santiago, and developed by 19 countries, it is the oldest instance of South-South cooperation in the region. The purpose of LLECE is to monitor Sustainable Development Goal 4 (SDG 4) and provide information for educational improvement. Its main functions include:

- Coordinate regional studies to measure learning achievement and associated factors.
- To gather information on policies for the learning and well-being of students in the region.
- Contribute to the formation of national capacities for educational evaluation.

The Regional Comparative and Explanatory Study (ERCE)

Within the context of education in Latin America, the Latin American Laboratory for Assessment of the Quality of Education (LLECE) has developed the Regional Comparative and Explanatory Study (ERCE). The first study, called PERCE, was carried out in 1997 with the participation of 13 countries. In 2025, the fifth edition of the ERCE will be carried out with the participation of 19 countries. Although its scope has expanded in terms of the number of participating countries, at present, most Spanish-speaking Latin American countries and Brazil are part of the study. Similarly, the scope of the test has been expanded.

The ERCE is carried out through a process that has the following specific characteristics:

- It is based on a common regional curriculum, a framework built with the collaboration of all participating countries.
- Capacity building: Not only countries participate, but the idea is that they implement the study in their own countries.
- It goes beyond a simple evaluation, it seeks to understand what is happening in education in order to improve it.
- It is the only assessment that includes writing and a social-emotional skills module. In addition, global citizenship and sustainable development curricula are being considered for inclusion.

ERCE: regional comparative and explanatory study

<p>In what grades does it apply?</p> <p>Third and sixth grade students</p>	<p>What areas does it evaluate?</p> <p>Writing Mathematics Reading Science (6thGrade)</p> <p>Learning assessment framework based on the curricula of the participating countries.</p>	<p>What is the focus?</p> <p>What students know Multiple choice and open-ended questions in each area.</p> <p>In learning contexts Questionnaire of students, family, teachers and principals.</p>	<p>Other domains?</p> <p>Socioemotional Skills Module in sixth grade</p> <ul style="list-style-type: none"> • Empathy • Openness to diversity • School self-regulation • School self-efficacy (2025) • Cooperative work(2025)
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Source: LLECE presentation at the Workshop: Deciphering data: how to move forward in translating learning assessments into actions for educational improvement?

There are student batteries, which include questionnaires for students at the different levels of education evaluated, questionnaires for families, questionnaires for teachers and questionnaires for principals.

ERCE 2025 and its curriculum analysis

ERCE 2025 involves a 5-year preparation process. The process includes the following phases.

1. Curriculum analysis for instrument development. A framework based on the common curriculum.
2. Pilot
3. Item analysis
4. Make adjustments for the next application.

Curriculum analysis

The objectives of the curriculum analysis are: i) to contribute to the design and construction of the 3rd and 6th grade ERCE items in the disciplines of language, writing, mathematics and natural sciences; and ii) to obtain an overview of the curricula of Latin America and the Caribbean, in order to generate debate and learning for educational improvement.

The inclusion criteria used for the selection of curriculum documents is as follows:

- Curricular documents for each discipline under study by grade level and subject area
- Documents containing conceptual elements and defined skills.
- Documents that refer to learning objectives, competencies or similar.
- Documents with recent date.

The qualitative stage is based on a deductive logic and a codification guided by the emerging categories of the curriculum analysis and the ERCE 2019 test. A mapping of the regional curricula is carried out to arrive at a common curriculum, from which the Table of Specifications is elaborated. Additionally, a frequency analysis (in terms of percentage) of the cognitive domains and processes (indicators) identified in this stage is performed. A convergence analysis is also carried out, incorporating into the specification tables those domains that converge in a certain percentage of countries.

To safeguard the validity and reliability of the analysis, the following measures are implemented:

- Initial review of definitions: The definitions of the elements to be analyzed are reviewed to ensure clarity and consistency.
- Periodic calibration meetings: Periodic meetings are held to calibrate the coding and ensure consistency among coders.
- Double coding: Double coding is performed to verify the reliability of the process.

The following measures are taken to safeguard the validity and reliability of the analysis:

- Initial review of definitions
- Regular calibration meetings
- Double coding.

ERCE 2025: instrument design and evaluation implementation

Design of evaluation instruments

There are certain criteria that support the design of assessment instruments. The following elements are essential for the construction of any test: i) to measure learning derived from the regional curricular analysis; ii) to reduce and control sources of error in the measurement of this learning; iii) to encourage students to demonstrate what they know using instruments free of bias. The instruments should be adapted to the regional reality and seek to ensure that all students can answer the items and questions.

The design of assessment instruments is based on certain fundamental criteria. For the construction of any test, it is essential to consider the following elements: to measure learning derived from regional curricular analysis, to reduce and control sources of measurement error, to encourage students to demonstrate what they know using instruments free of bias, to adapt the instruments to the regional reality and to ensure that all students can answer the items and questions.

The development of LLECE instruments involves, in a simplified manner, the following processes: curriculum analysis, development of specification tables, item writing, creation of an item bank, language adaptations, instrument assembly and iteration with local teams.

The principles underpinning an evaluation are validity, reliability and impartiality.

Macro- and micro-level use of evaluations

Not all evaluation or information is useful for every decision and depends on the use that is made of it. Summative, diagnostic and formative instruments are needed. This applies at the national, sub-regional and school level.

The instruments must be technically sound and meet psychometric standards, but they must be at the service of decision making at all levels. It is essential to have a guiding question to drive the improvement conversation and keep moving forward. It is essential to have a clear use of assessments.

A systemic and complex view of school systems is required. Information is generated, but it is not connected to action. Information should drive decision making.

At present, different studies show that learning assessments at the regional level are used to certify studies, to carry out selection tests for higher education, to evaluate or encourage teachers, and to rank schools or countries according to their performance.

ERCE 2025: strengthening institutional and technical capacities.

The ERCE Capacity Building program aims to strengthen the capacities of the technical teams of the participating countries so that they can effectively carry out all the stages of a large-scale international educational assessment. For the survey and technical process, capacities must be installed in the national teams for each of the stages.

OECS Case: Towards Innovative Evaluation Practices

This case focused on the Organization of Eastern Caribbean States (OECS) initiative to move towards innovative assessment practices in the region. The main objective is to improve the use of data and assessments at the school level to strengthen decision making and student learning.

Challenges and strategies:

- Addressing challenges in assessment practices: The need to address existing challenges in student assessment practices is evident. To this end, it is proposed to implement continuous professional development programs, mentoring and collaborative learning communities. These programs will enable the acquisition of the skills and knowledge necessary to implement effective assessments and use data efficiently.
- Effective data management and utilization: Effective data management and utilization are crucial to the success of the initiative. Despite the availability of data, it is often underutilized due to its format and lack of emphasis on its use by teachers.

To solve this, it is proposed:

- Support the development of centralized data management systems that facilitate access to and analysis of information.
- Provide data literacy training to be able to understand and interpret data properly.
- Conduct hands-on workshops on data utilization.
- Foster a data culture.
- Encourage stakeholder participation.
- Data-driven decision making.
- Regular data reviews.
- Invest in resources.
- Pilot and scale innovative practices.

Key aspects in the development of educational tests:

1. Convergence analysis and specification tables.
2. Common curriculum as a basis for assessments.
3. Knowledge of curricular status.
4. Joint input analysis with the countries.
5. Standards for testing.
6. Transparency in the construction of instruments.
7. Importance of strengthening institutional and technical capacities.

Comments from participants

- The importance of training and LLECE as tools for teachers' continuous learning is highlighted. The value of learning through the training processes offered by LLECE is highlighted.
- Capacity building and continuous training are essential. National tests are developed based on the LLECE methodology.
- The importance of technical training for the evaluation groups is highlighted.
- National efforts are vital to the success of any assessment initiative. Evaluation can generate valuable information, but it is essential to have the right initial conditions in the education system.
- A national team is required as a counterpart to any regional evaluation project, and this team should focus on continuous capacity building. It is important that the evaluation is not only implemented, but that it is connected to decision-making processes to generate real impact.

Closing comments

- **Evidence is critical to inform policy.** You need to have a culture of evaluation as part of your educational planning.
- **Education should be inclusive, equitable and of good quality.** Education should seek to measure learning outcomes for all students. This also needs to be part of the monitoring framework, especially progress on Sustainable Development Goal 4 (SDG 4).
- **Participation in large-scale assessments is important.** Participation in large-scale assessments for regional and comparative monitoring.
- **Need for more in-depth information.** The low learning outcomes in the region require more detailed and accurate information.
- **Link between evaluation and educational improvement:** Evaluation should be an instrument to promote the continuous improvement of education.
- **Expansion of evaluation systems:** There is a need to broaden the scope of educational assessment systems to encompass a more complete view of the educational landscape.