How do education systems improve?

What role can education management units play in promoting systemic improvement?

In order to improve the quality of education, several countries in Latin America and the Caribbean are implementing institutional reforms that affect the roles and responsibilities of education management units at different levels (national, subnational, local, and school level). With the aim of contributing to the technical dialogue vis-à-vis these reforms, the Education Division of the Inter-American Development Bank has carried out a comparative analysis of the institutional architecture of five high-performing education systems: the Ontario Province in Canada, the Commonwealth of Massachusetts in the USA, Finland, the Netherlands, and New Zealand.

* Education Specialist, IDB. This brief is result of a study coordinated by Emiliana Vegas, Chief of the Education Division of the IDB, and Analía Jaimovich. Catalina Covacevich, Chelsea Coffin, Katherina Hruskovec, and Lorena Landeo participated in the study.
Latin American education systems have improved access to education considerably. However, student achievement is still lagging behind in the region:

- In 2012, Latin American countries attained positions between the 51st and the 65th place in Math, and between the 47th and 65th place in Reading out of 65 countries participating in the OECD’s PISA international examination, with a large percentage of students in the lowest performance level.
- Moreover, less than 2% of Latin American students achieved a high performance level in Math, as compared to 55% in Shanghai, China. Results for Reading achievement were similarly low.

HOW DO HIGH PERFORMING EDUCATION SYSTEMS PROMOTE EDUCATION QUALITY?

Education management units (at the national, sub-national, local or school level) normally have both administrative (i.e. hiring and payroll, transportation, school meals, etc) and/or academic functions (i.e. curriculum development, staff performance evaluations, teacher professional development, school improvement programs, etc). This study focuses mainly in the academic functions, particularly in the quality monitoring and school support mechanisms that these systems implement.

The five education systems analyzed have different education management institutional arrangements:

- At one end of the spectrum, Finland, Ontario, and Massachusetts have local education management units (municipalities, school boards, school districts) that are in charge of the administrative and academic management of groups of schools. The central Ministry of Education (at the national level in Finland, at the provincial or state level in Ontario and Massachusetts) interacts with schools through these intermediary structures.
- At the other end of the spectrum, in New Zealand there is a more direct relationship between the central level and schools. Schools are managed by school boards at the school level. The school board of each school is responsible for the administrative and academic management of the school, and interacts directly with the central Ministry.
- The Netherlands are a hybrid case that combines school boards at the school level, school boards that manage more than one school, and municipalities that manage several schools.
Regardless of the details of their institutional arrangements, in all five cases local education management units (municipalities in Finland, school boards in Ontario, school districts in Massachusetts, school-level school boards in New Zealand and the Netherlands) have both administrative and academic (specifically, quality monitoring and school support) responsibilities.

**FIGURE 1: EDUCATION MANAGEMENT LEVELS**

**INTERMEDIATE STRUCTURES**

**CENTRAL MINISTRY + 1-TO-1**
Let me see how you are doing and we will know what you need: Use of information to identify improvement needs

The five systems studied create data-rich environments. Data is routinely used to make strategic decisions for school improvement at the central, local (school district, school board, etc), and school levels. Education information systems use a variety of data sources, as well as formal and informal mechanisms for data collection. Data is geared towards identifying improvement needs in the system. Such identification is done in a process that involves both the school and the local and/or central management level.

» The Netherlands have a risk-based school inspection system. The Inspectorate assesses each school’s risk of not attaining minimum quality standards. It does so by collecting information from several sources: student achievement data, school self-evaluation reports, school financial reports, parental complaints, etc. Based on the risk assessment, the Inspectorate may visit schools to gather additional data.

» The Ontario Statistical Neighbors is an information system designed to help the Ministry and school boards monitor the quality of education and identify improvement needs in the system. It gathers information from the Ministry of Education, data on student performance in provincial examinations, demographic information, and other data. The system makes the information available to different profiles of users (the central Ministry, districts, schools) so that improvement needs at each level can be identified and addressed.

Zooming in: Use of information to focalize support processes

These education systems categorize schools according to the level of support they need, based on the analysis of student performance and other data. School support processes are targeted to those schools that need it most.

» In New Zealand, the Education Review Office categorizes schools into three groups, based on their self-assessment and an external evaluation: high-performing schools, average-performing schools, and at-risk schools. Schools receive differentiated monitoring depending on what group they are in: every 4 or 5 years if they are in the first group, every 3 years if they are in the second group, and every year if they are in the at-risk category.

» Massachusetts ranks schools and school districts in five levels according to their progress vis-à-vis the goal of reducing learning gaps in half by 2017. The districts and schools that are furthest from
achieving the goal receive priority academic support from specialized centers called DSACs. Districts and schools that, despite the additional support, are still in critical conditions regarding education quality go through a turnaround process.

**Improving from “inside” with support “from outside”**

The theory of action behind support mechanisms in these systems assumes that schools are responsible for their own improvement process, but that they need external support to keep improving after reaching the limit of their own capacity for improvement. Specific characteristics of support mechanisms vary, but a common feature is the presence of an external agent who can understand the needs of the school and support it in its improvement process.

» In Finland, Ontario, and Massachusetts, the role of external support tends to be borne primarily by local education management units.

» In New Zealand and the Netherlands, the role of external support is carried out by the central ministry and private agents hired by school boards.

**Focusing first on improvement processes, only then in other consequences**

Accountability mechanisms are aligned with the provision of support for instructional improvement. Once the improvement needs of a school (or a local education management unit) are identified, a process of support provision is triggered. Only if this support doesn’t help the school improve, last resort measures - such as intervention, de-financing, or closure of institutions - are taken.

![Figure 2: New Zealand: Needs-Based Support to Schools](image-url)
I will help you: Local education management units act as direct providers of support services

In Finland, Ontario, and Massachusetts, local education management units (municipalities, school boards, districts) act as a direct provider of support services for school improvement. Local management units have staff specialized in quality monitoring and the provision of technical assistance for school improvement. In local education management units that manage many schools, these are in general organized into networks of 15-30 institutions, and pedagogical support is delivered according to the needs of the network.

» In Helsinki, Finland, schools are organized into networks of about 25 schools. Each of these networks is under the responsibility of a district leader in charge of providing support for instructional improvement.

» In Boston, Massachusetts, primary schools are organized into networks of 15 schools. Each of these networks has a network coordinator and a team of professionals to provide direct instructional support and facilitate links between schools in the network and operational and academic staff at the district level.

I will help you to help: There are nested support structures

In Finland, Ontario, and Massachusetts, each level of the education administration, from the central office to the school level, is responsible for identifying needs and providing support to the lower levels. There is shared responsibility for improvement between the center, the local education management units, and the schools. Each management level management is responsible for capacity building at the lower levels.

» In Ontario, the Student Achievement Division at the provincial Ministry of Education is responsible for capacity building and providing ongoing support to school districts so that they in turn can provide support to their schools. In addition, schools classified as underperforming are supported jointly by the central Ministry and the school district. This nested structure allows not only focalizing provincial and district’s efforts in the schools that need it most, but also allows capacity building at the district level.

» In Massachusetts, school districts classified as low-performing districts receive extra support from specialized units at the state-level Education Department. Each of these offices works with a range of between 9 and 17 struggling districts to support their self-monitoring, the development of district
improvement plans, and the implementation of instructional improvement programs in the district and in low-performing schools. In extreme cases where, despite the external support, districts do not improve, they may enter a turnaround process.

I will get someone to help you: Education management units act as capacity brokers

In New Zealand and the Netherlands, education management units (school boards) are generally small units that operate at the school level. Often these units do not have the expertise to directly provide support to the school. They act, rather, as a capacity brokers. They are responsible for hiring external technical assistance providers who will support schools in their improvement process.

I will help you from the central level: The central ministry provides support to schools

In addition to the external support providers that education management units may hire, in New Zealand and the Netherlands central ministries have a role in providing direct support to schools.

» In the Netherlands, schools classified as at-risk have priority access to services offered by the Council of Primary Education. Services include expert evaluation and school support teams to understand the causes of stagnation and implement instructional improvement actions.

» In New Zealand, the Ministry of Education has a cadre of technical advisors who work directly with schools and facilitate links between schools and specialized units within the Ministry. Technical advisors provide priority support to schools classified as at-risk by the Education Review Office.