Assessment practice in policy context: Latin American countries
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Abstract
The article describes the development of assessment systems in Latin American countries, mainly since the decade of 1990. Ten to fifteen years ago few assessments existed in the region and they produced results that were rarely distributed to the public. Today testing has proliferated, mass media debates results, and education authorities take decisions based more on fads and political pressures than in solid knowledge. Two perils are detected: the lack of continuity brought by political instability and the wrong practices of teaching to the test and poor instruction that are increasingly present in several Latin American countries.

Background and first steps
Latin American educational systems arose in the 19th century, but the region’s unstable situation delayed their development in most countries until the middle twentieth century. By the 1970s and 80s, education was obligatory only through primary (elementary) school. During this time, mandated education began to extend to the lower secondary (middle school) years. Even today, however, poverty in sectors of several Latin American countries prevents children from finishing their primary schooling.

Two or three decades ago the chief concern of educational policies was access to primary and lower secondary schooling. In some countries this continues to be the priority, but student learning levels are gaining in importance, especially since the mid-1990s. In part this is due to the low results among Latin American countries participating in international student achievement assessments. It is also due to economic globalization which demands attention to the preparation of future workers and citizens needed for a competitive society and effective democracy.

The development of standardized tests of school achievement began in the early 20th century. Over the first half of this century, this movement built momentum to the extent that teacher evaluations began to integrate standardized testing. The influence of these developments was felt by mid-century in Latin America when some teachers were asked to prepare multiple-choice tests. They were asked to standardize their students’ scores, known as grading on a curve, but since no special training was provided, the quality of teacher-made tests was poor. By 1960 standardized tests were used as entrance exams to high-demand programs in higher education in some schools at Mexico’s National University, and the Technological Institute of Monterrey began to use a Spanish version of the Scholastic Aptitude Test (SAT), prepared by the Puerto Rican College Board. In 1968 the Colombian Institute for Higher Education Promotion (ICFES) was established to develop college entrance exams. For primary and lower secondary education, the first large-scale assessments were conducted in Chile, Mexico, and Costa Rica.

Assessment development since the 1990s
Previous efforts to develop student assessment systems in Latin American were characterized by poor technical quality and low continuity. Thus, before the 1990s accurate assessment systems did not exist. Efforts were sporadic and incomplete. It was not until the 1990s when large-scale assessments were given increased importance. At the end of the first decade of the 21st century, more than half of the countries in the region have stronger assessment systems. Technical and organizational improvements have been made which translate into greater continuity of test administration and higher quality data.
Argentina

In 1993 the Ministry of Education established the National Assessment System of Educational Quality to make National Assessment Operatives (ONEs). Initially these were administered to students in the final year of primary and lower secondary schooling. Tests evaluated math and language. Later they were extended to other grades and subject areas. The primary school assessments were administered until 1999. In 1997 they began universal testing of the lower secondary level, which were repeated in 1998, 1999 and 2000. In 2000 the creation of the Institute of Educational Quality was approved. The serious economic crisis that struck this country prevented plans from advancing, and the ONEs intended for 2001 were not carried out.

After the 2000-2001 crisis assessment was conducted in 2002 and 2003, and it was decided to administer tests in the future every other year. The exams were given in 2005, 2007 and 2009, under the direction of the National Division of Information and Evaluation of Educational Quality (DINIECE). Many of the nation’s 24 jurisdictions administer their own assessments. In 2003 equating techniques were introduced and in 2005 achievement levels were defined in relation with the Common Curricular Content. In 2009 all the students in the last year of secondary education were assessed (census-based), as well as a sample of 9th grade. The country is planning to switch to a three year cycle, with assessments of 3rd and 6th grade students one year, 9th and 12th grade in another, and a third year for analysis and dissemination of results.

Bolivia

In 1996 a System of Quality Measurement was established. In 1997 language and math achievement tests were administered to children in 3rd and 6th grade. In 2000 tests were administered to children in 1st, 3rd, 6th, and 8th grade, as well as in 12th. With these results a baseline was established as a reference for subsequent assessments. Tests in Quechua and Aymara, two native languages spoken by a large portion of the population, were developed. After 2005 the unit in charge of assessments was dismantled and no testing has taken place.

Brazil

From 1990 to 1995 student samples attending 1st, 3rd, 5th, and 7th grade were assessed. During this time the Basic Education Assessment System (SAEB) was initiated. In 1997 this institution was encompassed by the National Institute of Educational Studies and Research (INEP), which administers the National Secondary Education Exam and the National Course Exam—a college entrance exam known as PROVAO. Until 2001 samples of 4th, 8th, 10th, and 11th grade students were assessed every other year. The SAEB exams were redesigned in 2001. Revised editions included achievement levels and test equating to compare results over time. Other census based tests have also emerged since 2005. The Prova Brasil is administered every other year to students in 4th and 8th grade to assess language and math. Including more than 5 million children—all students attending public schools in urban areas—results are available by school, municipality, and state. The Provinha Brasil seeks to measure emergent literacy at the end of 1st grade. It is administered on a voluntary basis to children in public schools, where the results are processed. Several of the 27 states, such as Sao Paulo, Minas Gerais, and Parana, have developed their own assessments.

Chile

Chile developed a true national assessment system before other Latin American countries. The first tests were administered to 8th grade students in 1968. A renewed interest in these tests emerged in 1978 with the redistricting movement and a step toward privatizing several public schools. The Ministry of Education entrusted the Catholic University with the system’s development. In 1982 they began to administer the Tests of Performance Evaluation (PER) to students in 4th and 8th grade. In 1988, the Educational Quality Measurement System (SIMCE) was established, which was
absorbed by the Ministry of Education in 1995. Since 1988 high-stakes, universal tests have been administered every other year, alternating the grades. All the students are assessed in language and math. Tests in natural science, history, and geography are administered to student samples. In 1993 they administered tests to students in 11th grade, and again in 1994, 1998, 2001 and 2003.

Since 1998 Item Response Theory (IRT) has been used for test equating between assessment years. In 2003 a committee of experts conducted a general evaluation of the SIMCE. Based on this the ways in which assessment results are used were adjusted, but the assessment design remained the same. Achievement levels were instated in 2005. The tests are aligned with the Core Objectives and Minimum Obligatory Contents from the National Curriculum Standards, which define Progress Maps. Since 2006 the tests are administered each year to 4th, 8th and 10th grade students. The SIMCE continues to have a strong impact because results are provided by school. Attempts are made to leverage the tests’ potential and to use the results to develop policies that lead to the improvement of school quality.

**Colombia**

In 1968 the Colombian Institute for Higher Education Promotion (ICFES) was created to develop college entrance exams. In the early 1990s important educational reforms were undertaken and an interest in large scale assessments emerged. At this point ICFES was entrusted with test development for students in basic education. In 1991 language and math tests began to be administered to samples students attending 3rd, 5th, 7th, and 9th grade. Social and natural science assessments were then developed. In 1997 the Quality Division of the Ministry of Education and the ICFES launched the National System to Assess Educational Quality (SABER), which sought to evaluate a longitudinal cohort of students with annual exams. This idea was later abandoned.

In 2002-2003 the first universal tests in reading, math, natural sciences and civic competence were administered. The second round was during the 2005-2006 school year. Since 1998 Item Response Theory and test equating techniques have been used. Bogota has its own assessments, and there are similar efforts in other regions. In 2008 the ICFES initiated an important effort to redesign its tests. The intention is to improve the technical quality and measurement precision of different curriculum areas, combining universal and stratified student samples in a multiyear cycle.

**Costa Rica**

The Institute for Research and the Improvement of Costa Rican Education (IIMEC), at the University of Costa Rica, began to administer large scale tests in 1986, with the endorsement of the Ministry of Education. This led to the creation of the National Center of Educational Evaluation in 1997. However, because assessment efforts could not be consolidated, national assessments are now administered by the Ministry. Universal assessments in 1986 were administered to students in 3rd, 6th, and 9th grade in language and math. In 1987, 1990, 1996 and 1997 some of these grades were assessed, and in other subject areas. Currently, tests are administered to several grades, covering an array of subject areas. All children finishing 9th grade and secondary education (high school) are administered graduate exams which include all subject areas.

**Cuba**

The Evaluation System of Educational Quality began its development in 1996. The Central Institute of Pedagogical Sciences (ICCP), of the Ministry of Education, oversees the Quality Assessment Administrations. There are also provincial and local assessment units. From 1996 to 1997 language and math tests were administered to children attending 3rd grade in 100 schools. In 1999 6th grade students were added to the sample. Later, grades and the sample size have expanded, and the areas of natural science and history were added.
In recent years some grades of technical/professional schooling as well as teacher training programs are being assessed in Cuba. These subsample assessments include reviews of math and language notebooks. In 2008 it was also planned to conduct assessments of special education. Achievement levels are used to report the results and produce briefs for several teachers, school administrators, and provincial supervisors. In addition to student achievement, a socioeconomic indicator and other indices specify system efficiency, teacher performance, and school inspection.

**Dominican Republic**

Assessments began in 1991 with tests for 4th grade students. In 1992 exams were administered to 8th grade students, and to individuals attending a third term of adult education. In 1993 the last year of secondary education was included. From their inception the tests are universal. Since 1994 they are administered annually to all students completing their final year of basic (8th grade) and secondary (12th) education. The results of each student are combined with school scores to decide if the student will be permitted to continue to the following educational level. In 2009 the country is planning to create a new institution to develop a more comprehensive assessment system.

**Ecuador**

From 1996 to 2000 basic education assessment was carried out using tests developed by the National System for Academic Achievement Measurement, known as APRENDO. This was conducted by an external group of evaluators funded by the World Bank. They administered language and math tests to student samples attending grades 3rd, 7th, and 10th. From 2001 the responsibility of testing was passed to the Ministry of Education, who continued to administer the same tests to the same grades. The APRENDO tests used the Classic Theory and equating methods of results over time. These tests were made public following each administration. In 2006 it was decided to substitute these tests with the National Assessment System, headed by the Planning Division within the Ministry of Education. Every three years universal reading and math assessments will be administered in 4th, 7th, 10th, and 12th grade. Natural and social science tests will be administered to samples in 7th and 10th grade using a matrix design and IRT procedures.

**El Salvador**

The first tests, known as SABE, were administered from 1993 to 1996 as part of a project designed to strengthen achievement in basic education. Each year language, math, natural science, and social science tests were administered to a national sample of students attending grades 3rd through 6th and grade 9th. In 2001 the National Monitoring and Evaluation Division launched the National Learning Assessment System (SINEA), which administers several achievement tests in various primary and lower secondary grades. In 2001, 2003 and 2006 the tests were administered to student samples, and in 2005 and 2007 they were applied universally. These tests contain defined achievement levels. The SINEA assumed the administration of the Learning and Aptitude Tests for Secondary School Graduates which, since 1997, were administered by Simeon Canes University, and required to graduate from secondary schooling all over the country. Test scores contributed 20% of secondary graduates’ final grades in 2005. In 2007 their weight increased to 25%.

**Guatemala**

From 1992 to 1996 the National Testing Center (CENPRE) of the Ministry of Education, with support of the US Agency for International Development, carried out their first assessments. In 1997 the University of the Valley of Guatemala assumed the tasks of the CENPRE and created the National System of Academic Achievement Measurement, later renamed the National Assessment Program of School Performance (PRONERE). From 1992 to 1996 it assessed children attending 3rd grade, and from 1997 to 2001 children in 6th grade. In 2004, using a test called Graduandos, the PRONERE undertook new assessments of other primary grades, as well as of students finishing
secondary schooling. In 2004 the University of the Valley administered Graduados for the first time to students finishing secondary school. While results do not influence students’ final grades, all students are required to take the test. In 2005 the Ministry of Education established the National Assessment and Educational Research System, within the General Division of Evaluation, Research and Educational Standards. The most recent tests include achievement levels, and seek to assess high level skills; they are developed in Spanish and four native languages; results are available for all the schools, ranked by results considering students’ socioeconomic status.

Honduras

From 1990 to 1994 the first large scale assessments took place. This was part of the Program for Educational Quality by the National Pedagogical University, with support from USAID. In 1995 the Measurement Unit of Educational Quality was created by the National Pedagogical University. This office assumed assessment activities as assigned by the Ministry of Education. In 1997 the first test was given in Spanish and math to 3rd and 6th grade students. In 1998 the second iteration of tests in the same subject areas was carried out, extended to 2nd, 3rd, 4th, and 6th grade students. Grades 2nd through 5th were assessed in 1999 and grades 3rd and 6th in 2000, 2002, and 2004.

Mexico

The Secretariat of Education launched initiatives in the 1970s that led to the creation of the Assessment Division. The first achievement tests were administered in 1972 as entrance exams to secondary schooling. By the end of the decade tests were administered to the first samples of primary school students. Qualitative advances in testing administration did not occur until the early 1990s. In relation to an economic incentive program for teachers, called Carrera Magisterial, large scale assessments were administered to students attending the last four grades of primary school, and the three years of lower secondary. The first administration was in 1993 to more than four million students. In 2005 the number approached eight million. In 1991, with support of the World Bank, the Program to Combat Educational Setback (PARE) was developed in four poor states, with student assessments. Similar programs continued, always with a student assessment component. In 1996 an initiative to define curriculum standards was undertaken. Assessment instruments were developed, called the National Standards Tests. These were first administered in 1998. Until 2004 they were administered annually to national samples of primary school students. Since 2000 they were given to lower secondary school students as well.

In 2002 the National Institute for Educational Evaluation (INEE) was created, to develop independent assessments of the country’s educational system. These tests have high technical quality and a wide distribution of the results, which contrasts with the previous practice of refraining to share test results publicly. As of 2004 INEE developed Tests of Quality and Educational Achievement (EXCALE) using a matrix design. These cover the core curricular areas. EXCALE tests use multiple choice and open response items, and are administered to representative samples of students from all states within a cycle of four school years, successively assessing students in 9th grade, 3rd, 6th, and the final preschool year (kindergarten). In 2006 the Secretariat of Education began to administer additional census-based exams (National Tests of Educational Achievement in School Centers, ENLACE) during the four final grades of primary school and the last grade of lower secondary. In total, every year more than 10 million students are tested. In 2008 students attending their final year of secondary school were tested for the first time.

Nicaragua

Nicaragua participated in a project by the Organization of Iberoamerican States (OEI) and the Central American Cultural and Educational Coordination (CECC) to establish standards for primary education, with an assessment component. In 1996 the Assessment Division of the Ministry of Education began to administer tests from the APRENDE project. In 1999 the National Assessment
System for secondary and basic education was created with support of USAID and UNESCO. Language and math tests are administered to samples of 3rd and 6th grade students. The last administrations reported were from 2002 and 2006.

Panamá

Large scale assessments can be traced to 1985. At this time, tests were administered to a national sample in a project led by the Organization of American States (OEA). In 1988 and 1992 the Ministry of Education carried out additional testing. In 1996 a National Assessment System for Educational Quality (SINECE) was established; samples of students of 3rd, 6th and 9th grades were tested, and again in 1998, 2000 and 2001. In 2002 the National Direction for Educational Assessment was created and the National Assessment System was redefined as one for Learning Quality (SINECA). The methodological quality has been improved; in 2005 samples of students of 3rd, 6th and 9th grade were tested on Spanish, Math, Natural and Social Sciences, and students at 12th grade on Spanish, Math and English. The first results were released on July 2006; later that year a full report has been published, with analyses of the answers by content area and their association with contextual factors. A Plan for the Improvement of Learning has been defined.

Paraguay

In 1995 the Ministry of Education created the National Assessment System of Educational Process which administers exams to student samples. The first tests were given in 1996 in language and math to 6th grade students. In 1997 they were administered to 3rd and 9th grade students, and in 1998 to 6th and 12th grade. From 1999 to 2006, students of one school grade were assessed each year, including grades 3rd, 6th, 9th, and 12th. Social science, natural science, and writing have been added. In 2001 an assessment of schools at-risk was conducted.

Peru

The Quality Measurement Unit (UMC) was created within the Ministry of Education in 1996. Since then, six assessments have been conducted. The first four, from 1996 to 2004, used student samples while the final two were universal assessments. In 2006 universal assessments began with 2nd grade students. However, only 55% of schools and 44% of students were covered. In 2007, 91% of schools and 80% of students participated in the testing, which included 4th grade students as well as those attending Quechua- and Aymara-speaking Intercultural Bilingual Education programs. In 2007 a longitudinal project began to follow a cohort beginning primary school until they finish 6th grade in 2012.

Uruguay

The National Administration of Public Education (ANEP) established the Measurement Unit of Educational Results (UMRE) in 1995. In 1996 assessments were conducted for the first time. Universal administrations in language and math were given to 6th grade students. Teachers administered these exams. Similar universal assessments were administered to 6th grade students in 1999, 2001, and 2005. In 1998 3rd grade students were also assessed, and in 1999 9th grade students were tested. In 2001 linguistic competence and math were assessed at the start of primary school, using tests administered by teachers in kindergarten, 1st, and 2nd grade. This sort of assessment was repeated in 2007 with students attending 1st grade. A universal, voluntary assessment was also administered to 6th grade students.

In 2008 natural science content was added to previous assessments. Universal tests continue to be administered by teachers in each school. A control sample is used for test equating and research. The focus that distinguishes the work of the Measurement Unit remains in force. That is, efforts are made so that test results benefit teachers in all schools of the country. They are used in important training efforts. Evaluation results and test materials are counted as resources to improve teaching.
practice. The tests include multiple choice and open response items. A project was debated in 2008 to transform the Measurement Unit into an Evaluation Institute with greater autonomy.

**Venezuela**

The National Learning Assessment System was created by the Ministry of Education at the end of the 1990s. In 1998 a language and math exam was administered to a national sample of 6th grade students. The instruments were developed with support from the Central University of Venezuela. This experience did not have continuity and until 2008 no new assessments have been conducted.

**Regional participation in international assessments**

The First Study of the Latin American Assessment Laboratory of Educational Quality (LLECE) was promoted by UNESCO’s Latin American and Caribbean Regional Office (OREALC) in 1997. Argentina, Bolivia, Brazil, Chile, Colombia, Cuba, Dominican Republic, Honduras, Mexico, Paraguay, and Venezuela participated in this project. Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Mexico, Nicaragua, Panama, Paraguay, Peru, and Uruguay participated in the Second Study in 2006.

Increased interest in assessment is reflected in the growing participation in other international projects as well, particularly the PISA studies by the OECD. In its first testing cycle, only Mexico, which was already a member of the OECD, and Brazil participated. A follow-up administration (PISA Plus) added Argentina, Chile, and Peru. These three countries did not participate in 2003, but Uruguay did, along with Mexico and Brazil. Argentina and Chile were integrated again in 2006, plus Colombia. In 2009 several more Latin American countries plan to participate.

Among Latin American nations, Chile has participated most in assessments conducted by the International Association for the Assessment of Educational Achievement: the Six Subjects Study in 1971, IALS in 1998, TIMSS in 1998 and 2003, and PIRLS and CivEd in 2001. Colombia participated in TIMSS in 1995 and 2000, as well as in PIRLS and CivEd in 2001. Brazil participated in TIMSS in 2003. The IEA is conducting a special administration of the civic education study for six Latin American countries in 2008. Regional cooperation has developed in relation to student assessment. Responsible parties for the administration of LLECE’s Second Study met regularly from 2004 to 2008. They are now preparing the Third Study. The six countries participating in PISA 2006 have met regularly, together with Spain and Portugal, to prepare a joint report, published in 2009. This group supports countries participating in PISA for the first time.

**Conclusion: Promises and perils**

Despite a late start and a shaky psychometric tradition, assessment systems in Latin America are consolidating and learning from international experience. Systems in Chile, Mexico, Brazil, and Uruguay already provide their educational authorities with information valuable to policymaking. Technical advances have been made in Argentina, Colombia, Ecuador, El Salvador, and Guatemala. Cuba’s system, though very different from the others, demonstrated surprising efficiency according to results from the two regional assessment projects. Growing regional cooperation can contribute to the strengthening of the weakest systems.

On the other hand, two considerable perils are detected on the assessment horizon. The first, which is long-standing, is the lack of continuity brought by political instability; its destructive effects are verified in decades passed. The second, a new danger to the region, is diminished educational quality as a by-product of inadequate understanding of the reaches and limitations of large scale assessment. Indeed, the recent trend to conduct census based assessments can have positive effects, but also negatives. There are not empirical studies on the subject, but qualified observers point out that the wrong practices of teaching to the test and poor instruction are increasingly present in
several Latin American countries, following the implementation of census-based assessments with public results in the form of rankings of schools.

It was only a decade ago that few assessments existed in Latin America and, when administered, they produced results that were rarely distributed to the public. In sharp contrast, today testing has proliferated to the extent that it begins to tire the schools. Mass media fervently debates results, often with little knowledge of assessment complexity, and education authorities tend to take decisions based more on fads and political pressures than in solid knowledge.

In order for the promise of large scale assessment to be realized, an objective vision of its real potential must prevail over superficial notions. It is essential to build teachers’ capacity to do good classroom formative assessment, and to avoid the risk of poor replication of large scale tests. Well balanced assessment systems are needed.

**Bibliography**


**Further Reading**


**Relevant Websites:** Programa de Promoción de la Reforma Educativa de América Latina y el Caribe, PREAL. [www.preal.cl](http://www.preal.cl)

**Suggested cross-references to other articles:** National Assessments; International Assessments; Impact of Assessment on Classroom Practice; The Relationship Between Assessment and the Organization and Practice of Teaching; Classroom Assessment in Policy Context; Formative Assessment.

**Key words:** International Assessment; Large Scale Assessment; Latin America; Uses of Assessment.

**Author biography**

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