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March 2005 No. 64

A regular series of notes highlighting recent lessons emerging from the operational and analytical program of the World Bank's Latin America and Caribbean Region

BARRIERS TO BETTER QUALITY EDUCATION IN CENTRAL AMERICA

Emanuela Di Gropello

Background

Central America's single most important educational challenge is improving learning at all levels. Improved learning is vital for individual and national growth, competitiveness, and quality of life. Today, most children complete their education without gaining sufficient skills to earn a good living. Poor learning outcomes cause school abandonment, grade failure and repetition; and snowball into larger and larger problems as students attempt to move to subsequent grades without the necessary skills and knowledge, resulting in more repetition, drop out, and absenteeism at higher levels regardless of the quality of later teachers. Improving learning can directly improve cognitive skills and abilities, and increase educational attainment by lowering drop-out and repetition. Quality is key to completing primary education and the Education For All goals in Central America. Higher quality will make workers more productive, increase rates of return to education and provide incentives for further private investments in education.

Learning outcomes require urgent attention in Central America. Except in Costa Rica, average test scores are low or low intermediate relative to each country's standards. Where assessments are comparable over time, results show no clear improvement in the past decade. Low learning achievements in all countries are associated with low levels of reading comprehension, often considered the most relevant indicator of educational quality at the third grade. Outcomes appear

substantially worse for poorer groups.

Factors inside and outside the educational system affect educational outcomes: the children, as influenced by their families and communities; teachers; pedagogy and curriculum; educational materials and infrastructure; and school management. Attending school does not automatically provide necessary skills and knowledge. This note, based on a new report by the World Bank¹, focuses on so-called supply-side constraints to learning (school characteristics) in El Salvador, Guatemala, Honduras and Nicaragua, but also mentions demand-side constraints. Policy options are suggested to address different types of constraints.



National Educational Assessment Systems

A first barrier to improving learning in Central America is the insufficient culture and development of evaluation. To analyze and improve quality, information is needed on educational achievement, and on its determinants. National assessment systems have two key roles: (a) providing relevant information to specific audiences (education authorities, school directors, teachers, parents) for diagnostic and policy reform/action purposes; and (b) making education authorities, schools and teachers accountable to the public.

Learning outcomes are typically measured through standardized assessments of student achievement in literacy and numeracy. All Central American countries now have stan-

standardized testing at primary and/or secondary level. However, examination design and national standards differ, making comparisons difficult.

Central American national educational assessment systems also differ in level of experience and institutional integration², but all are used more for diagnosis and action than for accountability. Dissemination of assessment information is weak, despite recent efforts. Feedback to schools and teachers is limited, and standardized testing at different levels of the educational cycle could be better aligned with curricula and national standards. Finally, despite recently developed regional standards, comparability is still inadequate.

Key Learning Constraints

Other key constraints include poverty, low parental education, social and cultural barriers, weak teacher performance and accountability, over-dependence on traditional pedagogical practices and insufficient instructional time.

1. Demand-side constraints

Test scores are correlated with wealth at family, community, and even state levels. Poor families are more likely to lack basic resources that help children learn. Student outcomes are also negatively related to low levels of parental literacy and education, and certain social and cultural characteristics of students, families, and communities. Linguistic differences pose barriers to learning when high-quality bilingual education is not available. This is particularly the case in Guatemala. The children of families that do not value education highly, or who feel culturally or socially alienated by schools, are less likely to succeed and advance in school.

2. Teachers

Teacher quality is difficult to measure. It involves capacity to transmit the curriculum to students effectively; and motivation and continuous effort to do so. Teaching capacity is related to teacher education levels and quality, quality of in-service support and training, and incentives to attract talented skilled people. Teacher effort and motivation are affected by performance incentives (e.g., supervision and inspection systems, salaries, and job security).



Teaching Capacity

Teacher pre-service training is consistently related to student achievement in Central American studies, although less strongly than elsewhere.

In all countries, it is necessary to complete at least the teacher preparation program (“*escuela normal*”) to qualify to teach in primary; and university level studies to qualify to teach in secondary. El Salvador sets the highest teacher training requirements and has the largest proportion of teachers who fulfill minimum requirements. Overall, 90 percent of teachers have tertiary education in El Salvador, 52 percent in Honduras and only 30 percent and 14 percent respectively in Guatemala and Nicaragua (see Table 1).

Table 1 - Highest Level of Education Attained by Teachers in Central American Countries

	El Salvador 2002	Honduras 2002	Guatemala 2000	Nicaragua 2001
	%	%	%	%
Primary		1	3	18
Secondary	12	46 (a)	67 (a)	37
Teacher School				26
Tertiary, Technical	61 (a)	2		3
Tertiary, University	27	50	27 (b)	11
Other		1	3	6
Total	100	100	100	100

Source: World Bank (2004). Notes: (a) Including teacher school; (b) Includes technical and university tertiary.

Honduras, Nicaragua and Guatemala face difficulties in attracting (and retaining) qualified competent teachers to rural areas to improve low efficiency and results among students from poor families.

To some degree, all four countries have a teacher surplus. El Salvador has responded by enhancing teacher selection criteria, requiring minimum examination scores and an accreditation test (ECAP). Poor results in ECAP and in achievement tests of Guatemalan student teachers in 2000 indicate a need to improve teacher training. Mismatches between demand and supply in teacher specializations contribute to sub-optimal teacher qualifications.

Studies show little association between *teacher in-service training* and achievement, which may reflect measurement difficulties and the spotty quality of this training. Overall, in-service teacher training seems to have improved in all four countries over the last decade. Systems have become more structured, and more flexible and decentralized, offering on-site school-based training and

distance programs, and encouraging participatory methodologies and classroom innovation. Challenges remain in improving the relevance and quality of these training programs.

More effort is needed to change and update classroom practices. Too little attention is paid to contexts (multi-cultural environments, rural areas, etc). Also, too few formal evaluations exist of training program effectiveness. Follow-up of those trained is needed to determine if they are applying what they learned. Finally, in some countries, training requires long absences from work (for example, Guatemala's two year work/study program).

Teacher effort and motivation, measured by teachers' absences or working hours, is low in several Central American countries.

Teachers in Honduras, El Salvador, and Guatemala have all benefited from recent increases in real salary levels. Current hourly wage levels are comparable to (or higher than) other professionals with similar qualifications and should, therefore, attract reasonably talented applicants. Indicators of teaching quality (test scores, teacher absenteeism and hours worked) do not suggest obvious improvements in teacher quality generated yet from these salary improvements.

Current structures of teacher salaries in the region (and throughout Latin America) undermine teacher quality by rewarding seniority and education level without regard to teachers' performance. Incentives to become qualified are desirable, but larger than warranted in some countries. It is good that El Salvador, Honduras and Nicaragua have introduced salary incentives to encourage qualified teachers to work in rural or disadvantaged areas. El Salvador recently introduced a merit-pay mechanism (*el bono al buen desempeño institucional*), linking salaries to aspects of school efficiency. The effectiveness of this incentive still needs to be assessed, but some evidence indicates that school-level performance incentives can boost student achievement, especially on indicators evaluated for the bonus. None of the Central American countries penalize teacher absenteeism.

Inspection systems, decentralized systems of teacher monitoring, and fixed-term contracts might also enhance teacher performance. Most countries are increasingly involving parents in teacher monitoring in an effort to compensate for the lack of central information on teacher performance, and show promising results.

3. Curricula, teaching methods and instructional time

In all four countries, curricula are nationally determined, with some regional differentiation. Teaching strategies—which should reflect the curriculum—are developed relatively autonomously by teachers. Homework frequency, instructional time, curriculum coverage, and active, par-

ticipatory methods appear to improve achievement and decrease repetition and failure rates.

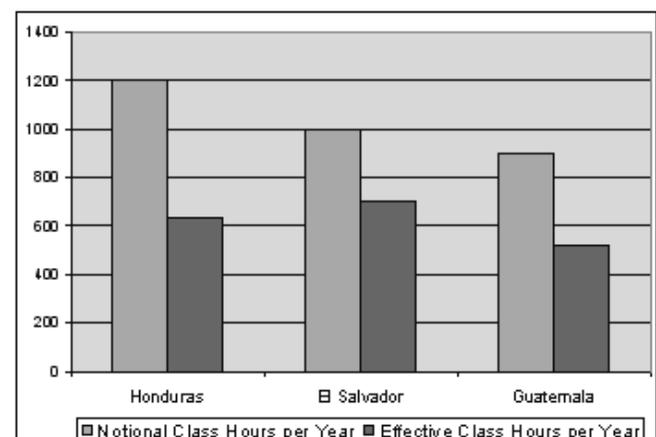
Pedagogy and curricular reforms

In the 1990s, all four countries implemented education reforms that decentralized education through school community-based management, increased education budgets, and introduced national school achievement assessment and curriculum reforms (mostly at primary level) to increase the relevance of education. Evaluation suggests that the reforms probably took the right direction, but that classroom practices have changed little, limiting effective use of new curricula and their impact on learning outcomes. Teachers in Central America are overly dependent on passive and traditional teaching methods such as dictation, repetition, lecturing, and individual work. There is a knowledge gap in this area, although the suspected reasons include inadequate teacher expertise in participatory pedagogies; lack of textbooks; and teacher opposition to the reforms, exacerbated by limited consultation with teachers on the reform process.

Instructional time (class hours)

Low effective instructional time (see Figure 1) is a major weakness in Central America. Recent studies in Honduras³ and Guatemala⁴ show that more teaching hours are associated with better educational achievement and pass rates. All countries have introduced school calendars of 180-200 days and 25-30 hour school weeks in primary. This should yield 900-1,200 class hours a year, in line with Latin American standards, although lower than Europe and South-east Asia (where 1,200-1,750 class hours a year are common).⁵ However, the widespread perception in Central America is that teachers' absences, school closings and administrative tasks reduce effective class hours to only 500-800 (or less), 60-80 percent lower than notional class time (although measurement is difficult).

Figure 1
Central America : Notional and effective class hours per year



Source: World Bank (2004).

Policy Implications

Responding to these identified barriers to learning and education quality, this analysis details four main areas of policy interventions: (a) improving national assessment systems; (b) enhancing teacher performance; (c) diversifying teaching methodologies; and (d) increasing instructional time. All are key to improving the quality of teaching and learning. The analysis also discusses a few interventions that could improve learning and education quality by addressing demand-side constraints.

Institutionalize assessment systems more. This includes starting evaluation at grade 1, and establishing effective dissemination mechanisms. Several innovative assessment dissemination policies are currently used internationally. One example is school report cards published in local newspapers or posted as laminated posters at school entrances.

Improve teacher education and preparation. This includes developing selection criteria and diagnostic tools such as accreditation exams, which may require full teacher certification systems as in El Salvador and Costa Rica; and reducing demand/supply gaps in teacher specializations.

Improve teacher effort. Analyze the feasibility of incentive mechanisms such as: (a) carefully designed team-based merit-pay schemes; (b) salary scales which promote higher effective hours of work; (c) decentralized systems of teacher monitoring; and (d) fixed-term contracts or local authority to hire and fire teachers. Setting-up effective teacher monitoring systems may be the most effective incentive to increase teacher effort and/or instructional time, possibly combined with more flexible hiring and firing mechanisms. An analysis of school-based management with community participation in the four Central American countries suggest that empowering parents to hire, fire and monitor teachers results in greater teacher effort as measured by teaching hours.

Diversify teaching strategies and deepen constructivist teaching methods. Emphasize classroom practices more in pre-service and in-service training and develop innovative ways of organizing in-service teacher support. This would include creating spaces for teachers to share ideas and methodologies. Develop an effective system of school supervision to ensure continuous support for teachers to apply new methodologies. Curricular reform, standards, training and supervision need to cover secondary grades – especially 7 to 9 – as well as primary education.

Increase instructional time. Lengthen the official school year

to 200 days. Develop better ways of recording teacher absences and school closings at school level, through continuously updating school registers. Implement an efficient monitoring system of teacher absences involving the department, district and community level.

Design effective interventions to address demand-side constraints. Improved quality of teaching and learning through these interventions could be strengthened by complementary interventions addressing demand-side constraints, such as poverty and low parental education. Demand-side interventions include: (a) publicity campaigns addressing learning quality that give families important information about exams, timely enrollment, or tips for supporting children's academic success in school; and (b) policies that directly impact children's background characteristics, such as their health, nutrition, and access to clean water and safe homes. Supply-side interventions include effective incentives for skilled teachers to work in rural and low-income areas and improving current programs for rural and indigenous populations (community-based school management, multi-grade teaching and bilingual education). These programs have achieved substantial improvements in performance of poor and disadvantaged, but do not provide all the elements identified for high-performing low-income schools.⁶



Notes

¹ World Bank (2004): “Central America: Education Strategy Paper”, Green Cover.

² In El Salvador and Costa Rica, evaluation began in the late 1980s or early 1990s and evaluation departments are fully integrated within the Ministry of Education. Evaluation is newer and less well established in Nicaragua, Honduras and Guatemala.

³ di Gropello and Marshall 2004, “Teacher effort and schooling outcomes in rural Honduras”, World Bank (mimeo).

⁴ Marshall 2003, “If you build it will they come? Primary school quality and grade attainment in rural Guatemala”, Stanford University (mimeo).

⁵ PREAL (2002): “El tiempo de aprendizaje en America Latina” – Serie Políticas.

⁶ World Bank (2004) identified three key determinants of good performance in poor schools: (a) satisfactory levels of teacher education and experience; (b) use of new pedagogical practices; and (c) substantive and supportive involvement of both teachers and parents in school management.

About the Author

Emanuela Di Gropello is a Senior Education Specialist with the Human Development Department of the World Bank's Latin America and the Caribbean Region.