Disrupting Latin America's Classrooms:

Best Practices for PreK-12 Education

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Executive Summary

- Technology can be a powerful tool for education—but it is not a silver bullet and must be effectively implemented to achieve results.

- Teachers must be appropriately trained to integrate new technologies into classrooms so that students become active learners facilitated by their educators.

- Schools should embrace technology, in conjunction with traditional teaching methods, as it offers the opportunity for more personalized learning.

- In an increasingly connected world, it is more critical than ever to foster an educational community that supports students and teachers.

State of Education in Latin America: The Case for Disruption

Challenges are abundant in Latin America's classrooms. Although access to primary education is close to universal, the quality of education in the region is among the lowest in the world. Students continue to lag behind their international peers: the average 15-year-old Latin American student is more than five years behind his or her counterpart from Shanghai in math skills.[1] On the 2012 Program for International Student Assessment (PISA), more than half of the students from the region did not achieve the minimum level of learning. All eight Latin American countries that participated in the evaluation ranked in the bottom 20 of the 65 countries tested.[2]

The region is failing to properly pay, recruit, train, and respect its teachers. Many countries maintain a labor-based relationship with teachers, failing to treat the profession as a highly skilled one. Until recently, for example, teachers in Mexico were not required to have a university-level degree. On average, a teacher in Latin America earns between $900 and $1,000 per month (averaging between $5 and 6 per hour). As a result, there is little incentive for the best minds to join the ranks of teachers. Latin American teachers spend less than 65 percent of their time in class actually teaching, compared with a benchmark of good practice in U.S. schools of 85 percent. That is equivalent to more than one day's schooling per week lost.[3]

Of course, basic infrastructure deficiencies are also a pressing issue in schools across the region, particularly in rural areas. According to the Inter-American Development Bank (IDB), 40 percent of elementary schools in Latin America do not have a library, 63 percent lack space for meetings and teacher offices, 65 percent are without computer labs, and 21 percent of schools have no access to drinking water.[4] When schools cannot provide proper conditions for learning, they fail to serve as an equalizer between high-resource students and their low-resource peers.

A reconceptualization of education starts by focusing on learning—what it is and how it happens in a fast-changing and increasingly connected world. Innovative solutions and new technologies are emerging around the world with the potential to help countries in Latin America leapfrog the most pressing challenges they face in education. The region has not yet effectively capitalized on these new technologies to improve education. The sharing of best practices of the models that are working in the region and across the globe will allow for a cross-fertilization that can bring Latin American schools into the twenty-first century.

Teachers

Proper teacher training in the effective use of technologies in the classroom is critical. While technology holds great promise for the future of teaching, it is merely one tool to improve education. It can be an accelerator for learning, but it can also be an amplifier of what is already occurring, for better or worse, in classrooms.

The IDB conducted a study of the One Laptop per Child (OLPC) initiative in Peru that found that while children given computers were ahead of their peers without computers in cognitive skills (such as abstract reasoning, language processing speed and working memory), the group with computers showed no improvement over their peers in key areas like math and language (measured by the national standardized test), classroom instruction, and reading habits. However, the OLPC program implemented with a more holistic approach, as in Plan Ceibal in Uruguay, shows markedly different results. An initiative of the Uruguayan government, Plan Ceibal trains more than 15,000 teachers annually on the use of new technologies and teaching methods. Its Digital Technology Laboratories have been shown to reduce dropout rates and facilitate enrollment in STEM fields (science, technology, engineering, and mathematics), coding and robotics learning. The program's videoconference English classes have helped to increase student performance.

Effective teacher training in the use of new technologies first requires a philosophical shift from the current academic mindset. In the past, the classroom was designed around an all-knowing teacher, a so-called "sage on the stage," to use Dr. Alison King's term, that helped lead students through a lesson toward a known outcome.[5] The future of teaching, however, lies in evolving the teacher's role from that of an omniscient educator to that of a "guide on the side" who facilitates the transfer of knowledge and teaches students how to think. Teachers today must be empowered to acknowledge that they do *not* have all the answers in order to allow their students to critically, creatively, and collaboratively approach problems.

Innova Schools in Peru, which the global innovation firm IDEO helped design, have students spend a portion of each day working through a challenge proposed by their teacher. In small groups, students sketch out solutions by using the Internet and physical handouts provided by the teacher. Another part of the day is dedicated to independent learning in front of a computer as students engage in lessons through programs such as Khan Academy, a personalized learning platform. In both activities, the teacher acts as a guide through the exercise to encourage students, monitor their pace of learning, and offer advice on how and where to look for further resources. This kind of active learning uses technology to motivate students to search for answers and build knowledge themselves.

Active learning can also be promoted through the use of technologies like Scratch, a free programming language and online community developed by the MIT Media Lab's Lifelong Kindergarten group. Scratch helps foster digital literacy in students, allowing them to not only use but also to understand the mechanics behind writing and creating new technologies. Today Scratch boasts more than 7 million users across the world who have shared over 10 million coding projects over its platform.[6]

Fully reaping the benefits of new technologies in the classroom demands that teachers are properly introduced to the technologies and supported in their implementation.

Students

Being competitive in a digital world first requires a digital education. Many models of education today include "blended learning," which combines traditional classroom methods with individual, independent study delivered through online content. This method allows students to have control over the pace, time, and place of learning, and is thus more adaptable to the needs of each student. While not all schools have access to computers, some education companies are working to provide such a service outside of schools. For example, Mexico-based Enova has worked since 2007 to establish computer labs in which students use the Enova online platform to study courses with facilitators teaching and monitoring their progress. The company, which is directed at low-income students of all ages, operates through both public and private funding, but also requires students to pay a modest tuition to ensure they are incentivized and active participants. Since 2009, Enova's 95 digital centers have trained more than 500,000 students in Mexico.

Schools that lack computers can also take advantage of students' personal devices by incorporating them into the learning context. In the United States, although 69 percent of high schools have banned the use and even possession of cell phones on school grounds,[7] studies show students continue to use them anyway by hiding them under their desks. Many schools have decided to lift those bans as school officials recognize they are both ineffective and limiting. In March 2015, the New York City Department of Education lifted the city's more than decade-long ban on personal devices in public schools and recognized their utility as tools for learning.[8] By using social media, games, and infographics, schools that allow the devices are able to make learning more interactive for students, creating different types of interaction that are not experienced in other learning contexts.

Of course, for students to better leverage the use of online content, sufficient infrastructure is required. Internet bandwidth costs in Latin America are high while Internet speed is slow and intermittent. Governments should consider Internet access as a public service for schools, much like water or electricity. This is especially true in rural areas, where digital access is more limited.

Being competitive in a digital world first requires a digital education.

Community

Schools must take full advantage of the opportunity allowed by the Internet to create and foster a true educational community that incentivizes and supports all actors. Research shows that when families, teachers, and schools are committed and work closely together, students attend school more regularly, stay in school longer, earn higher grades, and enroll in higher-level programs.[9]

Parental and family involvement is critical to creating a strong school community. Parents' regular communication with teachers and their familiarity with their children's coursework and progress have shown to be central to students' success.[10] Mexicanos Primero, a Mexican civil society organization focused on education, released a study that revealed that the majority of parents in the country saw their child's education as a means to a diploma and higher-paying job; they place little to no importance on actual learning and, as a result, are rarely engaged with their children's schools.[11] To combat apathy, Mexicanos Primero runs dissemination campaigns to educate the public about the current weaknesses in the education system and what this could mean for the nation's future.

Teachers are also central to the educational community. Improving classroom instruction demands rethinking how to best motivate and empower teachers and how to encourage strong candidates to go into the profession. Encouraging greater respect for teachers entails both increasing their salaries and adapting the traditional system of teacher selection and evaluations. Teacher assessments today have failed to discriminate between effective and ineffective teachers and have not aided in developing a highly skilled educational workforce.[12] New systems of evaluation are needed to focus not just on test scores as indicators of effective teaching, but to take into account the full range of what teachers do and the context in which they teach. In this way, communities and education authorities can better know how to support them.

Technology can be instrumental in creating a real community between students, families, teachers, and schools. Programs like Akdemia, a mobile school management platform designed for the entire school community, allows parents to track students' report cards and learning statistics, view academic calendars, and communicate easily with teachers and school administrators. Technology can also create a geographically dispersed community of learners and educators who engage with—thereby learning from and benefiting—each other. For example, Gooru, an educational search platform that offers digital content collection and an online teaching environment, provides teachers with a public space online to collaborate with each other. Social media can also help to bring the community closer together beyond the classroom. Students are increasingly turning to Twitter and Facebook to express concerns about their schools and ideas for policy changes, just as schools are making announcements and updates over such platforms.[13] The educational community depends on the strength of and collaboration amongst the network of students, teachers, parents, and the state.

Conclusion

These findings are the result of a roundtable held on March 10 and 11, 2015, organized by the Americas Society/Council of the Americas in conjunction with the co-chairs of its Chairman's International Advisory Council (CIAC). The event focused on disruptive models for preK–12th grade education and convened leaders of the public and private sectors, including experts and entrepreneurs in the field from across the Western Hemisphere to discuss scalable best practices and ideas that can be leveraged to ensure quality education and a path toward socially inclusive growth.

With the support of the IDB, the Americas Society/Council of the Americas will continue to expand its work on preK–12th grade education to connect leaders in the field around one of the most pressing issues for the region.

Endnotes

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