The weaknesses of Latin America’s education systems in producing acceptable learning levels are well known. The OECD’s PISA assessments, in which 15-year-old students from 65 countries (including 8 in Latin America) participated, suggest that the majority of youth finish secondary school without the most basic abilities necessary to be productive workers – or to continue to postsecondary studies with a solid knowledge base. The situation is likely even worse in those countries in regions that did not participate in PISA.

Reforming the education system is a fundamental and necessary condition to improve the quality of human resources and thus contribute to the improvement of productivity in the region’s economies. At the same time, there is growing evidence that professional training and professional development systems are not capable of providing businesses with the human resources necessary for their growth and development.

A symptomatic example of these gaps can be seen in the learning of foreign languages – an increasingly important skill for countries that hope to integrate themselves into the global economy. The English Proficiency Index produced by English First (EF EPI) reveals that Latin America remains behind in English proficiency levels compared to other regions of the world. In fact, Argentina is the only country ranked in the “moderate proficiency” category, while the other countries in the region are ranked as “low proficiency” and “very low proficiency.”

A recent global survey by Manpower Group reveals that Latin America leads the world in talent shortage, and says the problem is getting worse: five of the ten countries that have had the most difficulty filling positions in 2014 are in Latin America – Peru, Brazil, Panama, Argentina, and Colombia.

Moreover, between 2011 and 2014, there has been a considerable increase in the scarcity of talent in Latin American countries (mainly in Peru and Colombia, countries with high rates of growth). For most countries in the region, the changes during this period show an upward trend. Unlike a year ago, in 2014 all countries from the region fall above the global average (36%) in terms of the difficulty of filling jobs.

These results are consistent with the findings of the World Bank’s Enterprise Surveys. In a forthcoming publication, the Development Center of the OECD finds that Latin American businesses have greater difficulty finding the skills they need compared to their counterparts in the rest of the world. This difficulty is even greater for companies in the region that have skill-intensive production processes, as
well as those that operate in the automotive or mechanized sectors.\textsuperscript{ii}

These gaps appear to be especially important in the STEM disciplines (science, technology, engineering, and math). An illustrative example may be found in the case of energy reform in Mexico, which seeks to liberalize its oil sector and end the 76-year monopoly of the state oil company Pemex, generating a new demand for specialized talent. If we take into account the new oil companies expected to enter Mexico and compete for talent, as well as service providers and new and growing government agencies, the demand for engineers, geologists, and other specialized workers could be in the tens of thousands – a figure that Mexican universities are just not producing right now.\textsuperscript{iii} The programs of study needed to prepare competent professionals in the oil sector are very limited. And in the few institutions where these programs do exist, students often lack the opportunity to acquire practical skills due to a lack of funds, the low quality of laboratories, and few connections between universities and Pemex.

Although efforts have been made to combat these problems, such as the creation of the National Network of Petroleum Engineering Schools – which seeks to strengthen the ties between academic institutions and oil companies -, adapting to new market needs will take many years. In order to fill the gaps in the short term, Mexican companies will have to resort to foreign labor; this is already happening, with many thousands of Venezuelan oil specialists now working in Mexico.

According to same study by ManpowerGroup, a key factor leading to the observed gap between supply and demand of qualified workers at the regional level is due to the fact that “educational programs don’t respond to market needs. They aren’t focused in competences and abilities that are required to be an attractive and competitive talent. Most educational models are centered in the teacher and encourage learning based in memory instead of in analysis, logical reasoning, math, etc.”\textsuperscript{iv} Curiously, according to another survey by ManpowerGroup, nearly three quarters of educational institutions consider their graduates to be ready for employment, while only 42% of employers and 45% of graduates believe they are well prepared. It would seem that in addition to the gap in skills, there is a gap in expectations – and realism.

Training and higher education systems in the region do not seem to have the ability to respond quickly and effectively to demand. In the majority of countries, the traditional model of ‘national training institutes’ prevails, making it extremely difficult to reach the proper alignment between training programs and the demands of the private sector.\textsuperscript{v} Some countries have developed more innovative mixed-management models,\textsuperscript{vi} but, in general, their performance is far below that of countries that the OECD considers cutting edge. For the most part, the financing systems of these programs offer little or no incentives for their effectiveness.\textsuperscript{vii}

Higher education and professional-technical training systems in general follow a rigid model, and are little prone to innovate program offerings in response to the changing demands of businesses. The relative lack

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**Figure 1: English Proficiency in Latin America**

![English Proficiency in Latin America](source: EF EPI)
of short-term degree programs oriented towards job opportunities and a bias against non-university technical degrees are features of this rigidity that result in, on average, only 20% of higher education enrollment in technical-professional degrees (Figure 3A). Chile represents a unique case in which enrollment in Technical Training Centers and Professional Institutes has surpassed that of universities (Figure 3B).

It is worth mentioning that the importance of opening alternative paths in post-secondary education is also intensely debated in the US, where the very high and increasing costs of university education have created difficult barriers to access for low-income youth.\textsuperscript{viii}

In this context, considerations of career development in secondary school, the role of apprenticeships, and the development of socio-emotional skills also become important. A gaze towards the future of secondary education should consider the correct balance between building academic skills, so-called 21st century skills (creativity, critical thinking), and technical and socio-emotional skills. The latter includes factors such as empathy and interpersonal relations, perseverance, self-control and decision-making, and problem and conflict management, among others.

In a recent series of surveys in 13 countries (including Bolivia and Colombia), the World Bank measured not only cognitive and technical abilities, but also socio-emotional skills, based on the so-called “Big Five personality traits” (openness, conscientiousness, extraversion, agreeableness, and neuroticism) and including measures of compromise and persistence (grit), the so-called ‘hostile attribution bias,’ and time and risk preferences. In a preliminary analysis\textsuperscript{ix} of these surveys, socio-emotional skills figure prominently as factors for success. For example, skills such as conscientiousness and persistence are associated with a better transition from school to work, and there is a positive association between socio-emotional skills and wage levels. These findings reaffirm the growing attention given to including the development of socio-emotional skills in education and professional training programs.

Another aspect in which we see the rigidity of professional training and higher education programs is the measurement of outcomes. In contrast to the progress in establishing systems for the measurement of learning at the basic education level, the tendency at the higher education level has been to evaluate the functioning of institutions, particularly through accreditation systems. Colombia represents an unusual case in its extension of efforts to measure student results at the higher education level throughout the country. The SABER PRO test is mandatory for students in technical-professional development programs, technology, and university level professionals that have completed at least 75% of the academic credits in their program. And the Labor Observatory for Education tracks graduates of higher education and technical certification programs to learn how they fit into and fare in the labor market. Brazil (with the National Student Achievement Exam, ENADE), Chile (by tracking graduates through mifuturo) and Mexico (with the National Undergraduate Exit Exam) are setting the pace along the same lines. However, more generally, post-secondary education and vocational training systems have not developed a culture and practice of evaluating results comparable to that which exists at the basic education level.

\textbf{Figure 1: Top 10 Countries in Talent Shortages in 2014}

Given the trends toward the globalization of production and the increasing economic integration of the countries of the region, the internationalization of higher education is becoming increasingly important as a mechanism both to improve quality and to facilitate mobility of the workforce. Despite having been on the agenda for discussion for many years, the creation of an environment that fosters international collaboration and cooperation in higher education remains an unfulfilled promise. The low mobility of students between countries, representing less than one percent of enrollment on average, is just one example.

Even though there are many factors that help to explain the relatively low mobility of students between countries, the lack of common standards or other mechanisms that facilitate the approval of foreign degrees constitutes a significant bottleneck. In this sense, it is not surprising that the agenda for the Iberoamerican Summit of Veracruz in December 2014 includes the creation of an Iberoamerican Higher Education Accreditation Board (Consejo Iberoamericano de Acreditación de la Educación Superior, CIACES) as a means of moving forward in the creation of a more integrated higher education system. Similar bottlenecks include the lack of information systems for academic results that would facilitate credible quality comparisons; and the adaptation of regulations for higher education institutions in order to facilitate innovative schemes like joint programs, among others. These are all areas in which a hemispheric perspective (which seeks to integrate the systems of South, Central, and North America) is still lacking, despite recurring discussions on the topic.

One way in which innovation can play an important role in the transformation of higher education and vocational training is in the adoption of modern information and communication technologies that change class dynamics (making it less unidirectional and more interactive, and potentially more personalized) and allow for better use of distance education methods.

In a context of greater technology availability, significant growth in the demand for higher education, and increasing cost pressures, a wave of distance education programs has emerged both in the public and private sectors. Between the years 2000 and 2012, the number of university students participating in distance education programs grew from 168,000 (1.3% of those enrolled) to 1.7 million (7% of those enrolled). This is equivalent to an annual growth rate of over 30%. Mexico (10% of post-secondary students enrolled in distance education) and Brazil (16% of new students enrolled in distance learning programs) stand out in this area. The potential for innovation in this sector is huge. However, the regulations to which educational...
institutions are subject are restrictive, particularly limiting the development of fully virtual programs.

The potential for innovation can also be seen in the case of foreign language learning, as mentioned above. Recognizing the importance of English proficiency for professional success, Latin American ministries of education are making efforts to improve the teaching of English in schools. Programs such as English Opens Doors (Inglés Abre Puertas) in Chile, the National Program for Bilingualism (Programa Nacional de Bilingüismo) in Colombia, and Project EILE (Enseñanza de Inglés como Lengua Extranjera, Teaching English as a Foreign Language) in Costa Rica have focused on the expansion and improvement of teaching within schools. The programs have focused primarily on making English classes mandatory beginning in elementary school, and on improving the quality of education, including the improvement of teacher training and the use of technology in the classroom. In Ecuador, all teachers must take the TOEFL exam, and there is an ongoing effort to strengthen teacher performance.

At the same time, the market for private tutoring has expanded substantially in the region, becoming the preferred way of teaching English. Companies like Pearson English, the Wall Street Institute, and Helen Doron, among others, now offer English classes for tens of thousands of Latin Americans. Another company, Open English, has created a new model of English language education, offering online classes that allow students to access coursework 24 hours a day.

While there is growing regional consensus that school systems must improve their performance—and an acceptable degree of agreement that this will require reforms on such controversial topics as teacher policies, for example—there is a much lower degree of consensus on the weaknesses of training and higher education systems. While debates about low learning levels in basic education systems have risen to prominence in the mass media, debates about the rest of the education system have not.

As is evident from this quick review, there are many initiatives in progress all around the region. However, many of these initiatives do not seem to have the systematic profile necessary to significantly affect learning outcomes and, consequently, impact the job market.

The central message of this brief review is that systems of human resource development (vocational and professional development programs, and higher education more broadly) in Latin America need to accelerate their pace of innovation.

Given the institutional rigidities that characterize the region’s educational systems, it seems necessary to create more space for experimentation so that innovation arises organically rather than being mandated as part of a plan. This experimentation should go hand in hand with a strong push for evaluation, in order to learn from successes as well as failures. These are ‘frontier’ issues, and there may be no obvious answer at this point in time to many of the questions we are facing. In that context, the real failure is not trying, not innovating. Policy frameworks that promote transparency and competition among providers (public and private) appear to be an important aspect to promote this innovation. Also important are sufficiently flexible regulatory schemes (to facilitate experimentation), combined with a strong ability to intervene when experiments fail.
END NOTES


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