

Education in times of coronavirus:

Latin America and the Caribbean's education systems in the face of COVID-19

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INTER-AMERICAN DEVELOPMENT BANK

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The COVID-19 pandemic has dealt a hard blow to education systems throughout the region, affecting students, households, ministries and other public agencies, educational centers, teachers and school officials. The closure of educational establishments as part of the moves aimed at preventing the virus's spread¹ is keeping more than 165 million students from attending classes, from preschool to tertiary education, in 25 Latin American and Caribbean (LAC) countries (UNESCO, 2020)². Little is known about the economic and social costs of the pandemic yet, but what is known is that we will be facing an economic crisis of unprecedented proportions in modern history. Across-the-board drops in global GDP will impact developing nations the hardest³. The Inter-American Development Bank's Macroeconomic Report "Policies to Fight the Pandemic" forecasts a regional GDP decline of up to 5.5%⁴. The crisis is expected to affect basic human capital construction processes, so policies to mitigate the effects and preserve educational trajectories in the long term will be essential. This document aims to provide guidelines for the implementation of policies to strengthen the response capacity of LAC's education systems during and after the health emergency.

The prolonged closure of educational institutions will have negative repercussions on lessons learned, timely schooling, dropout rates and promotion. This will further impact poor and vulnerable middle class school-goers as well as indigenous students, migrants, and children with special needs⁵. Furthermore, repeaters and overage students as well as those who are in a critical grade or age face greater risks of being ejected from the system⁶. This situation may get even worse in education systems lacking effective distance learning methods adapted to households' characteristics⁷, a factor that can further deepen the gap between students.

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- 1 Earn, D. J., He, D., Loeb, M. B., Fonseca, K., Lee, B. E., & Dushoff, J. (2012). Effects of school closure on incidence of pandemic influenza in Alberta, Canada. *Annals of internal medicine*, 156(3), 173-181.
 - 2 Countries included are: Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay and Venezuela. Information retrieved from the UNESCO's Statistics Institute. <https://en.unesco.org/covid19/educationresponse>. Last update: May 1, 2020.
 - 3 Shalal, Andrea and Lawder, David (2020). IMF chief says pandemic will unleash worst recession since Great Depression. <https://www.reuters.com/article/us-health-coronavirus-imf/imf-chief-says-pandemic-will-unleash-worst-recession-since-great-depression-idUSKCN21RISM>. April 9, 2020.
 - 4 Nuguer, V., & Powell, A. (2020). 2020 Latin American and Caribbean Macroeconomic Report: Policies to Fight the Pandemic. Inter-American Development Bank. <https://doi.org/10.18235/0002284>
 - 5 Closing schools for covid-19 does lifelong harm and widens inequality, *The Economist*, April 30th 2020. OEI. (2020) Efectos de la crisis del coronavirus en la educación. Informes OEI. Organization of Ibero-American States; UNESCO (2020), Consecuencias negativas del cierre de las escuelas. Retrieved the 25/03/2020 from <https://es.unesco.org/themes/educacion-situaciones-crisis/coronavirus-cierres-escuelas/consecuencias>; Reimers, Fernando y Schleicher, Andreas (2020). A framework to guide an education response to the COVID-19 Pandemic of 2020. OECD.
 - 6 Duarte, et al. (2009). Education and the Financial Crisis: Risks and Instruments for Latin America and the Caribbean. Washington, D.C.: Inter-American Development Bank. Unpublished document. Sanz, Ismael, Sáinz González, Jorge and Capilla, Ana (2020).
 - 7 Cooc, N., McIntyre, J., & Gomez, C.J. (2016). Seasonal dynamics of academic achievement inequality by socioeconomic status and race/ethnicity: Updating and extending past research with new national data. *Educational Researcher*, 45(8), 443--453; Cooper H., et al. (1996). The effects of summer vacation on achievement test scores: A narrative and meta-analytic review. *Review of Educational Research*, 66(3), 227-268.; Alexander, Karl, Entwisle, Doris and Linda Olson (2001). Schools, Achievement, and Inequality: A Seasonal Perspective. *AERA*, Vol. 23, Issue 2.

LAC countries have launched emergency remote teaching initiatives⁸ to provide short-term solutions and some degree of continuity of the teaching-learning process. Solutions adopted so far have been in sync with each country's abilities and modalities as well as with the contents available to build an emergency distance education model. For example, most of the ministries in the area had at their disposal digitalized printed material (such as textbooks, libraries, etc.), education portals and online resources for students and teachers. Only a few countries had content platforms and learning management systems. However, it is crucial to understand that those resources were originally designed for a type of education that was to be imparted either totally or partially face to face rather than in a fully remote fashion.

The ministries are facing these challenges with a limited response capacity.

Due to crisis-related restrictions, the ministries themselves are facing difficulties to continue to operate, particularly because of lockdowns that prevent staff from attending their normal place of work. One after another, different diagnoses on Digital Transformation of Education Management and Information Systems (SIGEDs, after the Spanish acronym)⁹, the ability of many ministries in the region to plan and manage their education systems was already limited before the crisis. Doing it remotely and in the middle of a major emergency is a daunting task. On top of all this, the upcoming economic crisis with its accompanying drop in public revenues, plus continuing growing demands from other areas, such as the health sector, will translate into even bigger restrictions for the education sector. All this is expected to have an impact on education ministries' budgets and expenditure forecasts. In short, when they resume operations, educational institutions will not find themselves in the same situation they were before the outbreak.

As they face the prospect of reopening schools, ministries will meet pandemic-related pressures regarding school infrastructure and transport.

For one thing, basic sanitation infrastructure and access to drinking water will need to be fully operational in order to comply with basic handwashing and general cleaning protocols demanded by the health ministries¹⁰. Overcrowding reduction should also be prioritized, particularly in periurban areas¹¹, and so should school transport protocols. This will be essential to maintain minimum social distancing necessary to minimize contagion risks.

⁸ Hodges, C., Moore, S., Lockee, B., Trust, T. and Bond, A. (2020). The Difference Between Emergency Remote Teaching and Online Learning. *Educause Review*.

⁹ Arias Ortiz, E., Eusebio, J., Pérez Alfaro, M., Vásquez, M., & Zoido, P. (2019). From Paper to the Cloud: Guiding the Digital Transformation of Education Management and Information Systems (SIGEDs). <https://publications.iadb.org/en/paper-cloud-guiding-digital-transformation-education-management-and-information-systems-sigeds>.

¹⁰ Framework for reopening schools—Report by UNESCO, UNICEF, the World Bank and the World Food Programme. Retrieved April 28, 2020 from <http://pubdocs.worldbank.org/en/625501588259700561/Framework-for-Reopening-Schools-APRIL27.pdf>

¹¹ Duarte, J., Jaureguiberry, F. & Racimo, M. (2017). Sufficiency, equity and effectiveness of school infrastructure in Latin America according to TERCE. Report. Washington, D.C.: Inter-American Development Bank.

In addition, family incomes are shrinking due to job losses, low activity in the informal sector, and plunging overseas remittances¹². Although the impacts of an income drop on school assistance depend on a series of factors¹³, evidence suggests that **a prolonged crisis would undermine enrolment rates in the public sector**, particularly among certain population groups¹⁴, as well as **in the private sector in urban areas**, as was the case in Bogota and Buenos Aires in 2000-2002¹⁵.

This document provides an overview of measures taken by countries in the region regarding continuity of the education service during the emergency. It also offers an analysis of the basic conditions on which those countries based their actions, both from the perspective of service supply and from the families' ability to receive such services. Lastly, it presents a series of strategies, actions and policy options to answer to the crisis in the different areas involved. The recommendations are organized into the following areas: (i) strategies for pedagogic continuity; (ii) response strategies for educational institutions' administrative management; and (iii) steps to secure proper sanitation conditions are in place to reopen schools.

12 Breisenger, Clemens et al. (2020) Economic impact of COVID-19 on tourism and remittances: Insights from Egypt. IFPRI: Blog, April 1, 2020. <https://www.ifpri.org/blog/economic-impact-covid-19-tourism-and-remittances-insights-egypt>

13 Effects on education can be twofold—on the one hand, a negative effect is expected due to the “income effect,” as there exists a positive correlation between family income and education consumption. On the other, there is a “substitution effect” related to labor market contraction and aggregated demand, which can cause child work demand to shrink. Duarte et al. (2009). Education and the Financial Crisis: Risks and Instruments for Latin America and the Caribbean. Washington, D.C.: Inter-American Development Bank. Unpublished document.

14 Duarte et al. (2009), “although most families are exposed to labor market disruptions in times of crisis, poorer sectors are less likely to have savings and financial instruments to cushion the impact and therefore are more vulnerable to shocks. In general, the children most likely to drop school are those within the age range where attendance rates drop dramatically. The age range of children at greater risk of dropping school varies in different countries, with relatively young children between 10-13 years of age in countries like Guatemala, Honduras, Haiti and Nicaragua, and older children of between 14-17 in countries like Argentina, Bolivia, Brazil, Colombia, Costa Rica, Ecuador, El Salvador, Jamaica, Mexico, Paraguay, Peru and Venezuela.”

15 Duarte et al. (2009). Education and the Financial Crisis: Risks and Instruments for Latin America and the Caribbean. Washington, D.C.: Inter-American Development Bank. Unpublished document.

2. Overview of actions undertaken during the crisis to ensure continuity of education services

During the educational institutions closure, caution should be taken to ensure that measures adopted aim to (i) preserve the student-teacher and family-school link; (ii) provide content that is in line with the school curricula; and (iii) follow and monitor the learning process. The solutions so far provided by countries have focused mainly on providing content that is in line with the school curricula. The feasibility of ensuring the inclusion of the two other aspects of the learning process just mentioned has been tied to preexisting infrastructure possibilities and to contents available to build a speedy, emergency distance education model¹⁶. This remote learning modality, which is being implemented at record time and speed, is characterized by a combination of first generation (printed material, radio¹⁷ and television¹⁸) and second generation media (platforms, learning management systems) to deliver content and maintain some degree of interaction between schools and students. These different modalities require support to teachers and families. However, this support varies quite markedly from one system to another. Table 1 shows a list of measures to ensure educational continuity in LAC.

It is crucial to understand that emergency teaching involves using totally remote solutions to provide education that would otherwise be imparted face to face or in hybrid form. Its goal is not to recreate a robust education ecosystem, but rather to provide temporary access to learning that could eventually revert to a face to face format once the emergency is over¹⁹.

Table 1. Educational measures

	ARGENTINA	BAHAMAS	BARBADOS	BELIZE	BOLIVIA	BRAZIL	CHILE	COLOMBIA	COSTA RICA	ECUADOR	EL SALVADOR	GUATEMALA	GUYANA	HAITI	HONDURAS	JAMAICA	MEXICO	NICARAGUA	PANAMA	PARAGUAY	PERU	DOM. REP.	SURINAME	TRI. AND TOBAGO	URUGUAY	VENEZUELA
LEARNING PLATFORMS		x	x			x										x						x		x	x	
DIGITAL CONTENT	x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x
PHYSICAL MATERIAL OR SOCIAL NETWORKS	x	x					x		x	x	x	x	x		x	x			x	x	x	x				
TV OR RADIO	x		x	x		x	x	x	x	x	x	x	x	x	x	x	x		x		x	x	x	x		x
OPEN SCHOOLS																		x								

Source: Data compiled by the IDB's Education Division up to 05/01/2020.

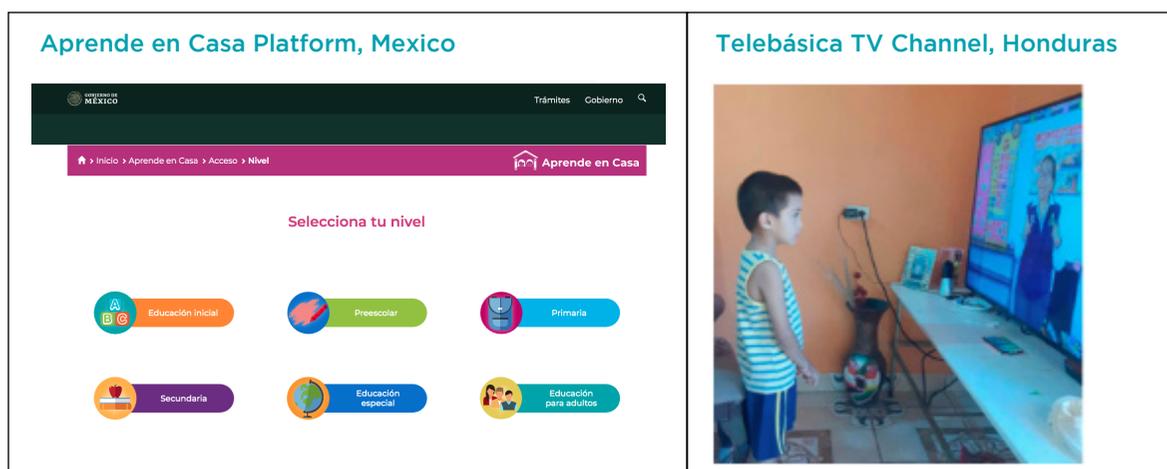
¹⁶ Hodges, C., Moore, S., Lockee, B., Trust, T. and Bond, A. (2020). The Difference Between Emergency Remote Teaching and Online Learning. EduCause Review.

¹⁷ Thukral, H. & Ho, J. (2009). Tuned in to student success: Assessing the impact of IRI. Education Development Center. <http://idd.edc.org/resources/publications/tuned-student-success-assessing-impact-iri>; Naslund-Hadley, E. Parker, S. W., & Hernandez-Agramonte, J. M. (2014). Fostering early math comprehension: Experimental evidence from Paraguay. (2014). InterAmerican Development Bank. <https://files.eric.ed.gov/fulltext/EJ1055163.pdf>

¹⁸ Mares, Marie-Luise and Pan, Zhongdang (2013). Effects of Sesame Street: A meta-analysis of children's learning in 15 countries. Journal of Applied Developmental Psychology, Volume 34, Issue 3, May-June 2013, Pages 140-151. Kwauk, Christina, Petrova, Daniela y Robinson, Jenny Perlman (2018). Sesame Street: combining education and entertainment to bring early childhood education to children around the world. Brookings Centre for Universal Education.

¹⁹ Efforts to ensure that all learning materials are clearly aligned with the different curricular areas are crucial.

Although regional countries did not have a consolidated distance learning strategy –let alone one for an emergency–, they have made major efforts based on their prior abilities. In this sense, Uruguay has taken advantage of the technological infrastructure developed as part of its Ceibal Plan (2006), and today is the only country in the region with an integrated platform for the administration of student’s learning. This has enabled it to transition from conventional to virtual classrooms almost immediately²⁰, although with some difficulties to reach the most vulnerable communities, where internet connectivity is limited²¹. For their part, El Salvador, Chile, Peru and Mexico, for example, have large digital libraries with textbooks and reference, narrative and informative books, guidelines for teachers and parents, and students’ workbooks in downloadable digital format. These elements are regularly provided to schools in print format and made available in digital format on their portals. All the material is clearly in line with the different curricular areas of each subject and grade. Other features include digital content such as games that are correlated to the curriculum and can be either downloaded or played online.



Most countries have portals that include analog and digital resources that are available from the ministries websites. Costa Rica, El Salvador, Guatemala, Honduras, Jamaica, Bahamas, Barbados, Trinidad and Tobago and Peru are some of the countries with websites that include a variety of downloadable content to work from home. Colombia’s learning portal Colombia Aprende has more than 80,000

²⁰ There is virtually no information on the question of online learning or its impact on preschool, primary and secondary education. However, there exists information about superior education’s online modalities, which was included in the work of Means, Barbara et al. (2010) Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies. U.S. Department of Education, Center for Technology in Learning, Revised September 2010. The authors have indicated that their findings cannot be immediately translated for use by lower education levels.

²¹ This is also the case of many U.S. school districts where in rural or low socioeconomic level communities, young people find it impossible to log on to online education platforms. See article by Goldstein, Dana, Popescu, Adam and Hannah-Jones, Nikole (2020). As School Moves Online, Many Students Stay Logged Out. New York Times, <https://www.nytimes.com/2020/04/06/us/coronavirus-schools-attendance-absent.html>

digital items available for teachers and students on a wide variety of educational topics²². However, their quality and explicit articulation with lessons and class planning structured along curriculum lines vary significantly from country to country. As already stated, these resources were conceived as support material for teachers in the classroom or as a complement to homework. Besides, there are no standalone contents or software to help teachers evaluate pupils' progress in specific areas.

At the same time, a significant number of countries have adopted strategies based on first generation technology, such as newspapers, radio and television.

Countries like Argentina, Barbados, Belize, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Panama, Peru, Suriname, Trinidad and Tobago, and Venezuela have resorted again to these means to uphold the continuity of the education process due to internet connectivity limitations at many households. Mexico and Argentina have an ample offer of TV educational programs and Peru has issued an array of content in Spanish and original languages for different grades and levels, available on radio and TV. Trinidad and Tobago is focusing on TV programs, whereas Guyana prefers radio. Barbados is resorting to a combination of both, using state-owned channels. In Chile, the Education Ministry gone into a deal with television channels grouped in the Asociación Nacional de Televisión (ANATEL) and with the Consejo Nacional de Televisión (CNTV) to launch TV Educa Chile, a nationwide program that broadcasts learning content that is in line with the national curriculum, material provided by participating channels, and educational series produced by CNTV. Haiti has also launched educational programs on TV and radio and is currently working on fresh content. Argentina, Chile, Mexico and Peru have also decided to publish education content based on prior texts and other material and distribute it in schools serving vulnerable sectors of society. With support from UNICED and the IDB, Panama is issuing guidelines for home activities through newspapers that are highly popular among low-income sectors. Costa Rica and Peru have joined forces with national TV channels to include Sesame Street's "Aprendo en casa" (Learning at Home) educational series – an association facilitated by the IDB. Peru has also launched educational content through a network of national and local radio stations.

²² However, Colombia, due to its curricular policies, does not have structured material and texts that can be used nationwide. It is the only country in Latin America without a national curriculum. Instead, it has a series of curricular guidelines and standards for different areas of knowledge and last grades of each cycle.

Box 1.

Best practices outside the LAC region for educational continuity

European and Asian countries are at a more advanced stage in the COVID-10 contagion curve. Some were able to adjust and mature their distance education systems to provide a better emergency response. These are some of the best practices identified outside LAC:

- **Develop multichannel educational continuity strategies based on existing education conditions and resources.** Countries use a variety of first and second generation media to reach out to the whole population. France has the “My Class at Home” platform, which includes a virtual classroom, digital basic learning content, exercises and projects; the platform had 270,000 users in 2017 and boasts a total capacity of 15M students. This platform is complemented by the old France TV Education, now called Lumni, with a full array of online content offered through different channels of France’s state-run television. The country has also uploaded texts and workbooks that students and teachers can download and print. Meanwhile, Israel has blended modalities with an online content platform for asynchronous activities (Moodle and Google Classroom). Other countries have supplemented these tools with other communication tools to help teachers communicate with students (WhatsApp, Facebook, Zoom, Microsoft Teams, Skype, etc.).
- **Coordinate and synergize efforts among different management levels (central, regional, educational institutions).** In this scenario, the central government takes responsibility for dictating a general plan, offering guidelines for schools and families, and providing support to regional institutions and schools for its implementation. China, for example, has taken action on all three levels. The government launched a “national distance learning cloud” that included basic classes for schoolchildren. These lessons cover 12 subjects, including civic education and basic notions on how to protect against the pandemic. In the case of Italy, the government designed a website with tools, multimedia material and advice to help schools manage educational continuity. Each district came up with their own strategies, adapted to their specific situation.
- **Build partnerships with other actors to guarantee flexibility in the use of learning content.** Education systems don’t have the capacity to tackle this challenge on their own. Most have not yet developed all education contents either. In this sense, partnerships with the private sector and other ministries have been crucial to ensure educational continuity. In Italy and Spain, for example, the governments went into deals with RAI (public television) and TVE, respectively, to have them modify their morning broadcast programming and devote more space to education and culture. In Spain, on top of the deal with TVE, the ministry went into agreements with publishers to air on public TV digital content to go along with the texts. In addition, the ministry won support from non-conventional partners, such as “youtubers” to increase the availability of educational content on TV²³. The interoperability of resources and the flexibility in their use have been crucial. And in China, the Industry and Technology Ministry managed to have telecommunication companies and internet service providers supply 7,000 servers and widen the band to 90 terabytes. It was also able to enlarge internet coverage and access in rural areas and get discounts for low-income students. In Finland, meanwhile, internet service providers offer free connectivity to “.edu” sites, and educational software companies give teachers access to free content.

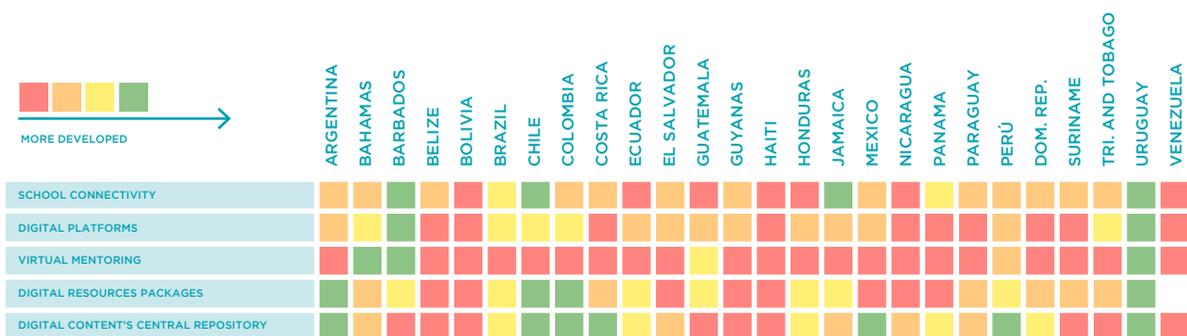
3. Main challenges faced by countries in ensuring the continuity of education services

Many countries have met major obstacles to ensure the continuity of education and provide support to students during the emergency. The COVID-19 crisis strikes in a context of great inequality, where any initiative to protect educational trajectories has to deal with the specific characteristics of the students and their households. On the supply side, it can help to consider the characteristics of Digital Transformation of Education Management and Information Systems (SIGEDs) and the preparation of educational systems to offer digital solutions. On the demand side, it is important to get acquainted with the characteristics of students and their homes so educational systems can pick the adequate distance learning solutions.

3.1 Initial conditions of Education Management and Information Systems (SIGEDs)

The SIGEDs²⁴ degree of development is an indication of how well prepared education systems are to offer digital solutions for educational continuity under COVID-19. Table 1 shows some baseline digital conditions prevailing in LAC prior to the closure of schools. Before the pandemic outbreak only a few countries had adequate connectivity or digital tools to support the learning process in a school-based context. Any measures to uphold the continuity of the learning process should take into account the governments' ability to provide system-wide digital solutions, all the more so during an emergency, where education ministries are not operating at full capacity.

Table 2. SIGEDs baseline digital conditions



Source: SIGED and data compiled by the IDB's Education Division.

²³ Spanish authorities have admitted that they had long neglected the development of TV educational contents, so when the crisis hit they didn't have sufficient material. They have since been considering mechanisms to renew and expand their programming, including going into partnerships with other European countries.

²⁴ SIGEDs contain all the management processes that are necessary for the education system to operate.

Most countries don't have a national digital education strategy to cope with a distance learning model that can capitalize on new Information Technologies (IT).

Rather, their education models, particularly at pre-university level, have been built around schools, with only few attempts to include blended modalities²⁵. Additionally, the public schools infrastructure has not promoted the IT potential. Typically, schools connectivity standards are just good enough for administrative purposes but insufficient for learning platforms to operate satisfactorily. Only 33% of Latin America's high school students attend schools with adequate internet speed or bandwidth²⁶, according to PISA-2018.²⁷ This is less than half the average reported by OECD countries (68%)²⁸. Students from vulnerable households are amongst those whose schools have insufficient internet speed or bandwidth (22%)²⁹. The IT gap was already wide before the pandemic, as evidenced by the TERCE survey on primary schools education³⁰. In LAC, only Uruguay has digital platforms covering the full curriculum and allowing teachers to monitor and follow students' progress (see Table 2).

The existence of a registry of students is one of the pillars that are needed to deploy a digital learning platform and follow their individual progress. However, it has been estimated that in LAC only 70% of the educational systems can identify each student individually³¹. Countries in the region have launched major efforts to offer some kind of digital content to pupils. Although most countries have both digital and analog contents available in repositories, the articulation of these contents with school curricula varies from country to country. The use of digital tools and contents for teachers' professional development is even poorer³². This is consistent with the scant adoption of digital tools in classrooms. The PISA 2018 data shows that less than 60% of high school teachers have the technical and pedagogic skills to integrate digital devices in the teaching process³³. In general, PISA results provide evidence of the schools' need for technological learning training³⁴.

²⁵ As already mentioned, in LAC only Uruguay had a blended education model in place. The challenge in this case was to expand its reach, but there already existed a solid technological infrastructure and connectivity basis in every home.

²⁶ Average of the 10 participating countries. In PISA 2018, this indicator is expressed as the percentage of students attending schools where the principal agreed or strongly agreed that the bandwidth or the internet speed was satisfactory.

²⁷ The PISA 2018 data was collected under normal conditions, not under health crisis conditions such as COVID-19's.

²⁸ Rieble-Aubourg, S. & Viteri, A. (2020). CIMA Brief #20: COVID-19: Are We Prepared for Online Learning? Inter-American Development Bank. <https://publications.iadb.org/en/cima-brief-20-covid-19-are-we-prepared-for-online-learning>

²⁹ Ibid.

³⁰ Arias Ortiz, E., & Viteri, A. (2019). Nota CIMA #14: ¿Cuentan las escuelas con la tecnología necesaria para la transformación digital? Inter-American Development Bank. <https://doi.org/10.18235/0001629>

³¹ Arias Ortiz, E., Eusebio, J., Pérez Alfaro, M., Vásquez, M., & Zoido, P. (2020). Buenas prácticas y lecciones aprendidas de los Sistemas de Información y Gestión Educativa (SIGED) de América Latina y el Caribe (ALC): resultados de estudios de casos de 16 sistemas educativos. Unpublished paper.

³² Solo un 15% de los casos estudiados cuentan con LMS usado para el desarrollo profesional docente. Arias Ortiz, E., Eusebio, J., Pérez Alfaro, M., Vásquez, M., & Zoido, P. (2020).

³³ Rieble-Aubourg, S. & Viteri, A. (2020). CIMA Brief #20: COVID-19: Are We Prepared for Online Learning? Inter-American Development Bank. <https://publications.iadb.org/en/cima-brief-20-covid-19-are-we-prepared-for-online-learning>

³⁴ Reimers, F. M., & Schleicher, A. (2020). A framework to guide an education response to the COVID-19 Pandemic of 2020. Organisation for Economic Co-operation and Development. https://read.oecd-ilibrary.org/view/?ref=126_126988-t63lxosohs&title=A-framework-to-guide-an-education-response-to-the-Covid-19-Pandemic-of-2020

SIGED's digital transformation has the potential to facilitate the exchange of information³⁵. In Santa Fe (Argentina), teachers can use a web app to access human resources registries data. In Mendoza (Argentina) and Uruguay, teachers and parents communicate via apps. Also in Uruguay and in Santa Fe (Argentina), parents and students can view school grades using a handheld app. In a COVID-19 scenario that includes emergency distance learning strategies, the existence of these communication and information exchange features can facilitate the support and follow-up that teachers provide to students and parents.

Under any scenario, before investing in platform development it is vital to first have a comprehensive view of SIGED and of how different apps should operate to ensure an efficient management of educational systems. In other words, all efforts should be oriented towards an integrated management platform. The sense of urgency to cope with the pandemic can lead countries to make hasty investments that may end up duplicating expenditures, causing inefficiencies or ending up with tools that cannot interact with other education system apps.

3.2 Barriers related to households and students characteristics

On the demand side, there are three groups of variables impairing the ability of students, particularly the most vulnerable, to continue their educational trajectory during the crisis³⁶:

		
Connectivity	Family and household	Student
<ul style="list-style-type: none"> ■ Connectivity ■ Availability of computers 	<ul style="list-style-type: none"> ■ Composition of the family ■ Availability of support ■ Baseline home conditions ■ Family economy ■ Mental health 	<ul style="list-style-type: none"> ■ Socio-emotional abilities for self-learning ■ Capabilities and competencies before the crisis

³⁵ Arias Ortiz, E., Eusebio, J., Pérez Alfaro, M., Vásquez, M., & Zoido, P. (2019). From Paper to the Cloud: Guiding the Digital Transformation of Education Management and Information Systems (SIGEDs). Inter-American Development Bank. <https://publications.iadb.org/en/paper-cloud-guiding-digital-transformation-education-management-and-information-systems-sigeds>

³⁶ Estimates based on harmonized home surveys from 19 countries in the region.

Connectivity and the availability of home computers influence distance learning access³⁷. In the region³⁸, of the total number of children from poor households with daily incomes under US\$3.1 (PPP, 2011) who are between 0 and 17 years of age and go to a public school, only 22% have internet access at home and just 19% have access to a computer. This goes up to 26% and 22%, respectively, among children from homes with daily incomes under US\$5. Needless to say, this consideration does not take into account other factors such as connectivity speed or computer capacity³⁹.

In Latin America, less than 30% of the most vulnerable high school students have access to a home computer to do their homework. PISA 2018 data shows that most students in the region are unprepared to take advantage of online learning opportunities from home. On average, 64% of 15-year-old high school students have access to home computers to do their homework. With 82%, Uruguay and Chile have a home computer access rate that is closer to that of the OECD countries (89%). In Peru (7%), Mexico (10%) and The Dominican Republic (13%), access to computers among the most vulnerable sectors is very limited⁴⁰.

³⁷ It should be noted that it is not school connectivity or computer availability or school labs what will determine access to education these days. It is connectivity as well as access to and ability to use the technology at home what will define how well those resources are utilized.

³⁸ Average of 10 countries comprising Brazil (2018), Chile (2017), Colombia (2018), Costa Rica (2018), El Salvador (2018), Honduras (2017), Mexico (2018), Paraguay (2017), Peru (2018) and Uruguay (2018).

³⁹ No information is available on this subject.

⁴⁰ Rieble-Aubourg, S. & Viteri, A. (2020). CIMA Brief #20 COVID-19: Are We Prepared for Online Learning? Inter-American Development Bank. <https://publications.iadb.org/en/cima-brief-20-covid-19-are-we-prepared-for-online-learning>

Graphic 1. Access to a home computer for school homework by socioeconomic level, PISA 2018



Source: Prepared by the authors based on PISA, OECD (2018).

Note: Countries listed in descending order according to average access from home. A vulnerable home refers to those households grouped in the lowest quintile (q1) of PISA's socioeconomic and cultural status index. Advantaged home refers to those in the highest quintile (q5) in the same distribution.

Considering connectivity limitations, first technology generation media such as radio and TV present a great opportunity to reach mass audiences. In Colombia the most vulnerable households have nearly universal access to television. Nearly 80% of children under 17 in poorer homes with a per capita income below US\$3.1 have color TV. This rate goes up to 91% in poor homes (with incomes under US\$5) and to 97% for children from vulnerable middle class homes (with incomes between US\$5 and US\$12.4). Although no data on radio ownership is available, it is estimated that 99.1% of Colombia's population can listen to some of the country's 1,596 stations⁴¹. With this data in mind, in order to achieve a mass audience and reach out to the most vulnerable communities, education ministries should include these analog media in their educational continuity strategies. To date, there already are educational programs broadcast on radio and TV developed by organizations such as Sesame

⁴¹ Colombia, un país de radio. (2020). Revista Semana, 2/18/2017 2:49:00 PM. Retrieved Feb. 20, 2020, from <https://www.semana.com/tecnologia/articulo/colombia-un-pais-de-radio/516027>

Street and National Geographic, among others. However, to attain an effective implementation it is important to bear in mind that there are certain limitations, such as the time of the shows, established airtime limits, content simplicity, etc.

A number of studies have shown that parents involvement is positively associated with academic performance⁴². In most countries, parents in advantaged homes (i.e., higher socioeconomic levels) get more involved in children's learning and progress⁴³. Additionally, the parent's education level is one of the most important variables in determining the socioeconomic status of the families that students come from⁴⁴. In other words, the parents educational level and the homes socioeconomic status are some of the determinants of parent involvement in students learning and progress. In the case of the population living in poverty or vulnerability (with daily incomes under US\$12.4), the heads of household tend to have low education levels. In the region, less than 20% of the heads of poor or vulnerable households have 13 years of education or more, or have completed their secondary school education. **This limits the potential support that fathers, mothers, or persons providing childcare can offer, particularly to younger children.** Sixty-eight percent of the households in the region have daily incomes below US\$12.4 (PPP, 2011), and one out of three households living in poverty or vulnerability in LAC are headed by women. This situation not only impacts the level of support that students receive at home—it can also have a socio-emotional and economic effect on the most vulnerable families⁴⁵.

There is an additional issue, and one that is seldom discussed and on which scant information is available: the willingness of students to embrace distance learning.

Reading comprehension is crucial for any type of instruction, and even more so for distance learning modalities, which require students to interact with contents in a more autonomous fashion. On average, 40% of third graders struggle with reading, which means that they lack the basic reading skills required by the TERCE tests. Besides, a greater proportion of pupils from the lowest quintile of the distribution have fewer skills (55%) compared with students from the highest quintile (19%). In high school the situation is similar. According to the PISA 2018 tests⁴⁶, 51% of 15-year-olds who are still attending school lack basic reading skills, with significant gaps by income quintile: while only 27% of students from the highest quintile lack basic skills, that proportion jumps to 72% amongst quintile 1 children⁴⁷. When it comes to science and mathematics skills, the results are even more disturbing.

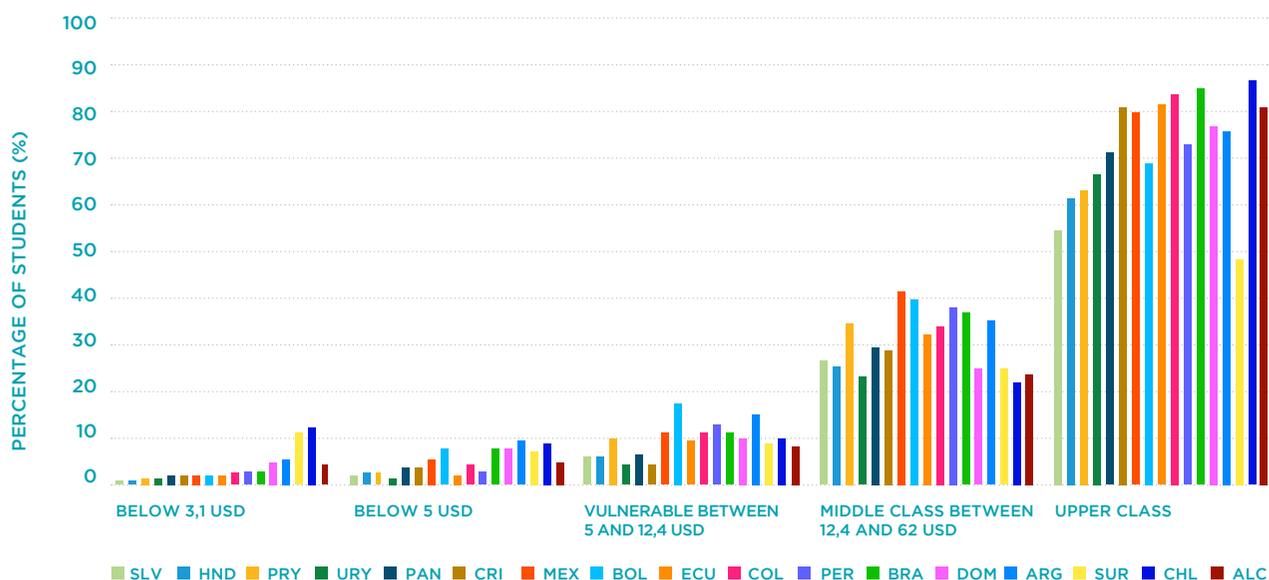
⁴² Castro, M., Expósito-Casas, E., López-Martín, E., Lizasoain, L., Navarro-Asencio, E., & Gaviria, J. L. (2015). Parental involvement on student academic achievement: A meta-analysis. *Educational Research Review*, 14, 33–46. <https://doi.org/10.1016/j.edurev.2015.01.002>

⁴³ Rieble-Aubourg, S. & Viteri, A. (2020). CIMA Brief #14: COVID-19: Are We Prepared for Online Learning? Inter-American Development Bank. <http://dx.doi.org/10.18235/0002303>

⁴⁴ Rieble-Aubourg, S. & Viteri, A. (2020). Nota CIMA #14 COVID-19: ¿estamos preparados para el aprendizaje en línea? Inter-American Development Bank. <http://dx.doi.org/10.18235/0002303>

⁴⁵ On top of all this, there are a number of variables related to the type of house the family lives in: whether the electricity service is reliable or intermittent, whether there is enough lighting, whether there are common areas where children can concentrate and study, whether there is overcrowding, etc.

Graphic 2. Heads of household by social class with at least 13 years of education behind them



Source: Prepared by the authors based on data from households surveys around the region.

46 Bos, M. S., Viteri, A., & Zoido, P. (2019). Nota PISA #18: PISA 2018 en América Latina: ¿Cómo nos fue en lectura? Inter-American Development Bank. <https://doi.org/10.18235/0002039>

47 This information masks the fact that between 30% and 50% of 15-year-old students in the region drop school when they turn 15 or are still in primary school despite the dramatic overage. Results for Panama show that of the 50% of 15-year-olds who are still attending school, 64% lack basic reading skills. Of the remaining 50% who are either not at school at all or are still in primary school, 96% have no reading skills.

Graphic 3: Percentage of students with low reading proficiency in primary and secondary school



Source: Prepared by the authors based on CIMA data.

Note: The low proficiency rate groups students with the lowest achievement levels—below PISA’s proficiency level 2 and below TERCE’s level 1. In secondary school, the low proficiency rate is based on PISA 2018 data. In primary school, the low proficiency rate is based on TERCE 2013 data. For illustrative purposes, data from 10 of the 15 countries who participated in the latest round of the survey was included. The average for Latin America takes into account the total number of countries that took part in each of the surveys. Quintiles are based on the distribution of the socioeconomic and cultural status indices of TERCE and PISA, respectively.

The intrinsic characteristics that make a student succeed at distance learning are a totally separate issue.

Evidence shows that students' learning levels are in line with the psychological characteristics and socio-emotional skills that they bring to the distance learning process. Self-efficacy, motivation, having adequate learning strategies and internal attribution ability are some of the features associated with better learning achievements⁴⁸. Although no specific information is available on these characteristics in the region, PISA 2015's questionnaires on associated factors provide some clues⁴⁹. One out of every seven 15-year-old students (14%) has low proficiency in collaborative problem solving, and higher-income children have better social skills than those from poorer households. For example, 55% of the higher-income youth have better than expected skills than would be expected relative to their academic performance, compared with 41% of the lower-income youth⁵⁰.

⁴⁸ Wang, Ying, et al. (2008). Characteristics of distance learners: research on relationships of learning motivation, learning strategy, self-efficacy, attribution and learning results. *Open Learning*, Vol. 23, No.1, February 2008, 17-28;

⁴⁹ PISA 2015 has a collaborative problem solving domain, defined as the capacity of an individual to effectively engage in a process whereby two or more agents attempt to solve a problem by sharing the understanding and effort required to come to a solution and pooling their knowledge, skills and efforts to reach that solution.

⁵⁰ Bos, M. S., Moffa, N., Vegas, E., & Zoido, P. (2017). PISA Brief #11: Latin America and the Caribbean in PISA 2015: How Well Can Students Work Together to Solve Problems? Inter-American Development Bank. <https://publications.iadb.org/en/latin-america-and-caribbean-pisa-2015-how-well-can-students-work-together-solve-problems>

4. Strategies, actions and public policy options to maintain educational services during and after the crisis

The following strategies and public policy options will vary depending on education ministries and secretariats implementation abilities, health measures adopted, conditions at school and home, and each country's academic year. These strategies focus on the degree of attention of each group of students. The last section includes actions to improve access and maintain coverage, such as conditional cash transfers, whose efficacy to boost school attendance is well proven, since they usually depend on other public institutions, such as, for example, social development ministries⁵¹.

Given the importance of social services provided in the educational sector, these aspects and related strategies will be further explored in a separate IDB technical note.

4.1 Strategies for pedagogical continuity

The following is a list of actions aimed at promoting the continuity of teaching and learning processes during the emergency. Also included are examples of some actions already undertaken by countries in the region, as well as policy recommendations based on best practices for emergency management and other considerations from the IDB's Education Division⁵².

Communication and ties

- Set up or strengthen a communications workgroup to harmonize the messages to educational communities following guidelines issued by the ministries handling the crisis. This workgroup must also decide what media will be used to disseminate the messages.
- Set up an alert or education information system. This system must include officials, authorities, administration staff and teachers. For example, it could take the form of a telephone communication tree comprising the ministry and all education districts or regions. Under this arrangement, every district promotes the development in each school of a communication tree that includes teachers and parents.

⁵¹ Snilstveit, B, Stevenson, J, Phillips, D, Vojtkova, M, Gallagher, E, Schmidt, T, Jobse, H, Geelen, M, Pastorello, M, and Eyers, J. 2015. Interventions for improving learning outcomes and access to education in low- and middle-income countries: a systematic review, 3ie Systematic Review 24. London: International Initiative for Impact Evaluation (3ie).

⁵² UNESCO (2020). Adverse consequences of school closures. Retrieved the 25/03/2020 from <https://es.unesco.org/themes/educacion-situaciones-crisis/coronavirus-cierres-escuelas/consecuencias>; Reimers, F. M., & Schleicher, A. (2020). A framework to guide an education response to the COVID-19 Pandemic of 2020. Organisation for Economic Co-operation and Development. https://read.oecd-ilibrary.org/view/?ref=126_126988-t631xosohs&title=A-framework-to-guide-an-education-response-to-the-Covid-19-Pandemic-of-2020

- Generate a communications strategy to collect family contact information from both the public and the private sector. This will help build a repository that the education ministry can use to send notifications, information on surveys and academic activities through different media. This initiative can be promoted, for example, at press conferences that should be held to provide information on the crisis' evolution. Peru, for instance, has set up an online system that private-school parents can use to request admission in public schools.
- Devise a strategy for the return to school, with detailed information on reopening protocols, requirements for students and teachers, schedules, and facility cleanup protocols. This should help ensure that education communities feel safe when returning to school when that becomes possible.
- Devise a cyber-security strategy for distance learning models. Students and teachers need to have a channel to report harassment. Data privacy and quality protocols also should be updated to provide a timely response during the crisis⁵³.
- Go into partnerships with telecommunication companies as well as radio stations and open and cable television to send messages using all available means (e.g., text, audio, videos, etc.).

Prioritization, resources, alignment and curricular support

- Set up a curricular prioritization, learning evaluation and regulations workgroup for each educational level. This group will define the basic curriculum elements that must be maintained for distance learning during the crisis period, evaluation strategies, and any regulation changes that may be necessary to validate the educational strategies implemented during the crisis. This must be accompanied by a clear communications strategy for principals, teachers, parents and students.
- Curricular prioritization should be based on the availability of media and channels in each country. These media must be associated with the baseline digital conditions of educational systems, household needs and type of connectivity they have. In the case of preschool and first grades of primary, a combination of television, radio, printed and manipulable materials and online resources may be adequate. For the rest of primary and secondary, it can be a combination of television (rural or marginal urban areas), printed resources, platforms and learning management systems. In the case of superior education, conditions are usually right for prioritizing the use of digital platforms.

⁵³ Cabrol, M., Baeza-Yates, R., González Alarcón, N., & Pombo, C. (2020). Is Data Privacy The Price We Must Pay to Survive a Pandemic? Inter-American Development Bank. <https://doi.org/10.18235/0002292>

What channels and means are going to be used and what is the target population for each one?

Multichannel strategy: Radio, TV and Internet with the objective of reaching most students
 Availability of content for Intercultural Bilingual Education (EIB) in 9 indigenous languages
 Availability of content for students with disabilities

MAIN CHANNEL/MEDIA OF DELIVERY BY LEVEL AND POPULATION					
Modality and level	Population / Level	Grades /cycle	TV Perú	National Radio y regional radios	WEB [Aprendoencasa.pe]
Regular basic education (EBR) – Pre-primary	EBR URBAN	3 to 5 years	x		x
	EBR RURAL	3 to 5 years	x	x	
	EIB (9 indigenous languages and Spanish as second language)	3 a 5 years		x	
EBR – Primary	EBR URBAN	All	x		x
	EBR RURAL	All	x	x	
	EIB (9 indigenous languages)	9 languages		x	
EBR - Secondary	EBR URBAN	All	x		x
	RURAL		x	x	
Special basic education	EBR URBAN	Early Intervention Program (PRITE) and Special Education Centers (CEBE)		x	x
	EBR RURAL	CEBE		x	
Alternative basic education*		Initial and intermediate cycle		x	
		Advance cycle			x

* There is a Virtual Classroom platform linked to the portal Aprendo en Casa for Alternative Basic Education



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- Create and distribute packages with materials for distance learning. Include pencils, pens, crayons and printed materials based on school texts or other available learning resources. These materials need to have the capability of adapting to use at home and include learning support guidelines for parents. They can be distributed using print media channels, popular supermarket chains, neighborhood stores or at the schools themselves. They can also be delivered to families using the same distribution mechanisms used to supply food to vulnerable households. Chile, El Salvador, Guatemala, Panama and Peru have designed materials specifically for home use, while Chile has printed guidelines and other materials for rural areas with scant connectivity.
- Conduct a mapping of existing distance learning solutions and contents in the country and in the region⁵⁴. This mapping must distinguish the different distribution means (e.g., printed material, radio, TV, telephone, internet, platforms) in each

⁵⁴ Examples include interactive radio, portals, YouTube, editorial digital resources, existing radio and TV programs and flexible self-learning guides. It is paramount to have, as they had in Spain, an educational corpus and structure, a data collection mechanism that includes surveys and datasheets and sets out parameters for sharing copyrighted information and the period of time during which contents will be available for free. Also, restrictive frameworks should be pursued.

audience, discriminated by education level, region, geographical area, and the characteristics of students and their homes. In addition, materials should be curated and repositories created along grade, age and prioritized material lines. For television, radio and printed resources, a clear list of contents and a detailed schedule that includes what programs or content will be run, where, what days and how long they last should be issued and teachers and families should be alerted in advance⁵⁵. Peru has adopted a multichannel strategy to reach different segments of the population with its program *Aprendo en Casa* (Learning at Home).

- Invite TV stations, cable and radio companies, educational radio institutes and other mass communications media to set aside airtime in their broadcast schedules for distance learning programs. In addition, partnerships should be established with regional players with experience on TV production and innovation matters to set up a series of resources for educational systems (e.g., Sesame Street, Discovery, Escuela+, NatGeo). Sesame Street and Disney TV, for example, have made available to the region free educational content for television, social media and print media. With financial support from the IDB, Sesame Street has provided free access to 500-plus episodes a year for all of Latin America. Peru has already started to broadcast Sesame Street nationwide and the show has become the most watched TV program. Panama partnered with all national channels in order to broadcast educational programs, while Chile, through an alliance between the Education Ministry, the Asociación Nacional de Canales de Televisión (National Association of Television Channels, Anatel) and the Consejo Nacional de Televisión (National Television Council, CNTV), has launched the “TV Educa Chile” channel.
- Set up a regional education TV and radio workgroup to share, adapt and structure content. The program schedule should be organized by age and subject, based on regional learning standards for language, math and science (UNESCO/OREALC). This group should include partners such as ILCE, TVE (Spain), EduSat (Mexico), Lumni (French Education Television) and Señal Colombia, among others.
- Develop or adapt sample class plans to distribute among a number of selected media wherever platforms make it feasible. This should be shared on a weekly basis with teachers and parents in both digital and analog format. For example, the *Aprendo en Línea* (Learning Online) program has a clear weekly progression based on school texts approved by Chile’s Education Ministry.

⁵⁵ Under initial conditions, there are a number of possible alternatives and different solutions can coexist in one country: (i) mail, newspapers, radio and television with virtually universal access; (ii) internet, email, chat and learning portals; (iii) communications tools (Zoom, Microsoft Teams, Skype or Google hangout); and (iv) Learning Management Systems (LMS) to manage, distribute, monitor and evaluate the distance learning process and work in an asynchronous environment replicating the schoolroom (Moodle, Google Classroom, Schoology, D2L).

- Set up a national and regional crowdsourcing strategy so that the best public and private school teachers and principals share lessons and digital resources through different distance learning channels.
- Create a call center and a helpdesk through different communication means (e.g., platforms, networks, telephone, email) for teachers, parents and caretakers to accompany the distance learning process.
- Implement a teacher training strategy that includes the use of technologies, distance learning during the crisis, and supporting distance learners. Set up a hotline that teachers can use to clarify eventual doubts about crisis-related educational methods. Peru, for instance, has launched a mandatory course on digital teaching competencies and Panama has created an open-platform portal for teachers' training.
- Relaunch areas where countries can exchange experiences and reactivate networks of educational content suppliers on television, web or offline platforms. These spaces can be created through webinars and online talks by experts. In addition, existing organizations like the Latin American Communications Institute (ILCE) and portals such as Relp, EducarChile and Colombia Aprende could be strengthened.
- Urge internet service providers and cellphone companies to enhance connectivity and hosting access⁵⁶ by: (i) promoting free use of “.edu” and “.gov” contents; (ii) free up use of a minimum bandwidth space for teachers; (iii) enhance connectivity opportunities for low-income areas; and (iv) find additional hosting space for all educational websites and platforms. It is also recommended to find mechanisms to ensure that access to his type of platforms is free and does not consume users' data plans.
- Create a common platform –or adapt existing educational portals– for disseminating prioritized educational content and implement a mid-term media interoperability policy (printed, digital, radio, TV, etc.)

⁵⁶ If free of charge is not an option, then subsidies could be implemented for teachers and students internet use.

Prioritization, academic diagnostics and educational trajectory protection

- Design and implement a standardized and agile training diagnosis system for teachers and school administrators, as well as training programs for baseline knowledge areas. This should be done in tandem with evaluation institutions and with other stakeholders specializing in the area. The diagnosis must provide information on students' achievements in order to uphold teacher's classroom work.
- Design specific strategies to prevent school dropout, such as money transfers, to alleviate the financial stress on families, prevent students from dropping school to join the labor market, and promote the return to school. These strategies must take into account and be differentiated by the different dropout-risk demographic profiles.
- Establish a system to keep track of students who may have dropped out of school during the lockdown. Strengthen educational trajectory protection systems to search for students who have dropped out or are about to drop out from school.
- Establish mechanisms for the reenrollment of students who were out of the system, using remediation tools as well as flexible and acceleration modalities. Additional incentives could be included to ensure their reenrollment.

Learning leveling and acceleration

- Implement the resumption of in-person activities articulated with prioritized contents and the diagnosis performed. Blended modalities should be considered to ensure low density of students in educational institutions until it is safe for schools to operate at full capacity again.
- Implement learning leveling and acceleration programs, including the development of analog and online resources and flexible modalities in all three areas –language, math and science– at all levels. A mentoring program with learning material for teachers and students could also be established. This could be achieved either by reorganizing the teaching force at educational institution or district level, or by creating a program of volunteers with trainees or retired teachers who can provide support to the students that need it.
- Establish clear student promotion parameters. Implement assisted or flexible promotion mechanisms, avoiding grade failing at all costs. If at all possible, set up an automatic promotion system with a leveling cycle in the following school year.

- Implement online and blended modality programs for teachers focused on the detection of learning difficulties and problems, classroom management and intervention for remediation, and socio-emotional support for students.

Regulations and norms

- Review the promotion and progression between years, with a strong focus on grade repeat policies and transition between education levels.

4.2 Response strategies for schools administrative management

Given the blow the crisis has dealt to family finances, some **changes are expected regarding their demand for private education**. If this happens, as was the case in the 2008 crisis, many families could take their children from private to public schools, creating tension between existing public education offer and students' demand⁵⁷. This may be felt even more strongly in urban and periurban areas, which is where most of the private education offer concentrates.

- Implement a quick strategy for collecting information on measures taken by private education institutions to cope with the crisis. Mobile devices platforms can be used for this purpose. The goal is to gather information on service continuity, student enrollment, decisions that are being taken regarding tuition and pension payments, cost of monthly fees, location of nearby public education institutions, teachers, school transport, etc.
- Conduct a prospective analysis by country and school district using administration databases and household surveys to determine possible enrollment fluctuations between public and private sector education, segregated by level.
- Establish a mechanism of micro-planning with global positioning to compare public sector's administration database information with private sector offer to identify schools capable of accommodating students from private sector institutions located in the same geographical areas.
- Establish new mechanisms or strengthen existing ones for the central management of school enrollment in order to keep track of students and take decisions on the eventual creation of new sections and teachers assignments due to potential changes in demand.

⁵⁷ Steinberg, M. P., & MacDonald, J. M. (2019). The effects of closing urban schools on students' academic and behavioral outcomes: Evidence from Philadelphia. *Economics of Education Review*, 69, 25-60.

- Set up a program of subsidies or demand-financing to maintain, to the extent possible, current private sector enrollment levels, particularly in urban centers, at schools that provide quality education to low-income sectors.
- Set up or strengthen existing credit funds that include subsidies to cover pension or sustenance expenses of students attending upper-middle or tertiary institutions and who agree to accountability procedures.
- Establish a crisis fund to support private pre-university and tertiary institutions that submit to quality and accountability oversight in order to minimize the disruption of private education services.

4.3 Securing sanitary conditions for the reopening of educational institutions

These actions will be aimed at reinstating on-site educational services at schools and re-launching tasks based on guidelines and protocols to be defined by each country's health authorities.

- Draw up educational centers reopening scenarios that take into account sanitary information, the academic calendar and the next year's outlook. These scenarios should include differentiated strategies to deal with adaptation and curricula prioritization as well as an academic calendar with specific days and times that will depend on each region's and institution's context.
- Set up a workgroup answering to planning authorities tasked with: (i) performing a quick diagnosis, using mobile devices, of basic infrastructure, drinking water and sanitation needs at every educational institution, and (ii) identifying teaching and administrative staff with potential risk factors for the return to school.
- Based on this information and on pre-crisis administrative information from the institutions, draw up a school reopening plan that takes into account overcrowding conditions and establishes mechanisms to balance enrollment among educational institutions and between morning and afternoon shifts as well as teacher availability so as to avoid congestion and maintain social distancing protocols.
- Based on protocols and guidelines supplied by health authorities, and working in collaboration with them: (i) devise teachers training modules that are aligned with the reopening of centers and cleaning and sanitation protocols; (ii) provide simple packages for class resumption that include basic disinfection and cleaning supplies as well as any other elements that may be considered necessary (e.g., thermometers, face masks, gel soap, etc.).

- Implement an action plan for minor repairs of sanitary infrastructure and drinking water access improvements, particularly at rural and marginal urban areas. To help with the execution of these works, a plan of direct transfers to civic organizations, community action boards, parents associations, school councils, etc. could be adopted. In addition, specialized services such as those provided by the United Nations Office for Project Services (UNOPS) and PNUD, among others, could be contracted.
- Put building management under one single managerial structure, particularly in centers with two or more shifts or working sessions.

The return to class should make sure that students and teachers alike remain healthy during the learning process. This will require new regulations on distancing and sanitation that will affect the use of physical space and the organization of educational institutions. The infrastructure and sanitation aspects associated with social distancing, cleaning, healthcare at school, drinking water and handwashing will be dealt with in greater detail in a separate document that will be published and disseminated through the IDB's different channels of communication.

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