



# Governments' Organizational Responses to COVID-19 - Igniting Interest and Institutional Capacity in EdTech

## Study Report

**The Basic Education Coalition**

*Study conducted in 2020, Report published in 2021*



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- Worldreader



## A. BACKGROUND & OVERVIEW

The COVID-19 pandemic ranks as one of the most significant global health crises in modern history. In response, governments around the world sought to mitigate transmission by closing schools and rapidly enacting new policies and programs to deliver distance, blended, and remote learning opportunities for students and teachers. Governments deployed a diversity of remote learning opportunities, ranging from radio-based instruction, to TV lessons, to mobile or online learning programs, blending no, low, and high-tech solutions. While significant research has been done examining the feasibility and effectiveness of these efforts in primary, secondary, and higher education settings, there are limited research efforts examining governments' organizational responses to COVID-19.

Led by the Basic Education Coalition (BEC), the Governments' Organizational Responses to COVID-19 - Igniting Interest and Institutional Capacity in EdTech study sought to understand what governments, specifically Ministries of Education (MoE), had to do organizationally to implement these programs, such as forging new partnerships, organizing and capacity building of personnel, developing or revising distance learning policies, and so on.

The information shared in this report stems from a global survey implemented across 12 countries in Asia, Africa, the Caribbean and South America with 23 responses from key MoE staff, including several department directors. In doing so, the study fills a knowledge gap for the international basic education sector and provides valuable insights to inform future education systems' capacity building programming. Insights and learnings surfaced from this study provide critical data on MoE capacity, technology investment, and other emerging structural shifts and strategies to support large-scale Education Technology (EdTech) programming and digital transformation of key activities.

### Basic Education Coalition

The development and implementation of this study was led by the Basic Education Coalition's (BEC) EdTech Working Group. BEC is a group of leading US-based organizations and academic institutions working together to promote global peace and prosperity through education. By leveraging their collective technical expertise and combining advocacy efforts, BEC members raise a unified voice to ensure US policymakers support and strengthen education in low- and middle-income countries.

## B. METHODOLOGY

**Sample.** This study was primarily quantitative, soliciting participant responses via an online survey. Where potential respondents preferred a phone interview to the online survey modality, that request was accommodated. Respondents were identified through a convenience sampling approach.

The BEC EdTech Working Group co-chairs solicited BEC member organizations' support in contacting Ministry of Education personnel to share the survey link. BEC member organizations reached out to Ministry of Education personnel they knew and who may be interested in participating in the survey. For each country, the aim was to reach approximately three Ministry of Education staff to help triangulate responses. A key selection criterion was that participants were required to have already worked with the ministry since before the start of the pandemic, as many questions were aimed at comparing the current state to the time before the outbreak of COVID-19. A link to the survey was then directly emailed to the identified potential respondent.

RTI International's Institutional Review Board (IRB) exempted the study from review as it did not meet the criteria to classify as research with human subjects. All respondents received a comprehensive introduction to the survey with information around who was administering the survey, for what purpose, potential risks, and data privacy and security, allowing informed consent for participation.

Final respondents were 23 government officials/employees of Ministries of Education in 12 countries, including Burkina Faso, Cambodia, Ethiopia, Haiti, Morocco, Mozambique, Nepal, Peru, Democratic Republic of Congo, Rwanda, Uganda, and Zambia.

On average, respondents had been working at their respective ministries for over 14 years with their experience ranging between less than one year to over 30 years. Respondents held a variety of roles at their respective ministries, including an undersecretary, an assistant commissioner, several department directors, technology initiative or team leaders, and technical experts.

**Instrumentation.** The online survey was designed to elicit responses along 10 main areas of investigation, oftentimes comparing the state before the outbreak of COVID-19 to the time of their participation in the study. The survey elicited responses in the following areas:

- MOE organizational arrangements
- MOE staffing
- EdTech policies, strategies, plans
- Learning, communication, and administration technology/platforms
- Funding for these platforms
- User technical support for these platforms
- Strategic partnerships
- Barriers to effective EdTech adoption
- Achievements in EdTech
- Elements to retain after COVID-19

The survey was drafted, in English in Google Forms, by the BEC EdTech Working Group co-chairs and then shared for comments with BEC members. The survey was then tested for correct administration flow, item clarity, and duration. The final survey had 38 items and was translated into three languages, French, Spanish, and Portuguese.

The survey was administered between November 2020 and January 2021.

**Limitations.** This study was not designed as a representative, rigorous investigation into government responses to COVID-19. As such it did not include a more thorough instrument testing process or rigorous sampling and administration approaches. The study was designed to provide early insights into different Ministries of Educations' organizational responses to COVID-19 regarding the above themes before and since the outbreak of the pandemic.

## C. FINDINGS

This section shares findings from the survey responses collected from the following countries:



**Forced digitization.** The pandemic has been widely acknowledged as an event that accelerated digital transformation. This has also been the experience in public education in the countries we surveyed. For example, the Head of the Coordinating Service of the Strategic Education Development Program in Burkina Faso identifies “the effort of digitizing the learning and training contents for all levels of teaching” as the greatest Ministry of Education achievement during the pandemic.

Teacher and other stakeholder adoption of digital technologies has always been a challenge, but the switch to remote and hybrid learning as schools were closed forced teachers and governments to adopt learning and communication technologies. Teachers and students developed new behaviors in using digital tools.

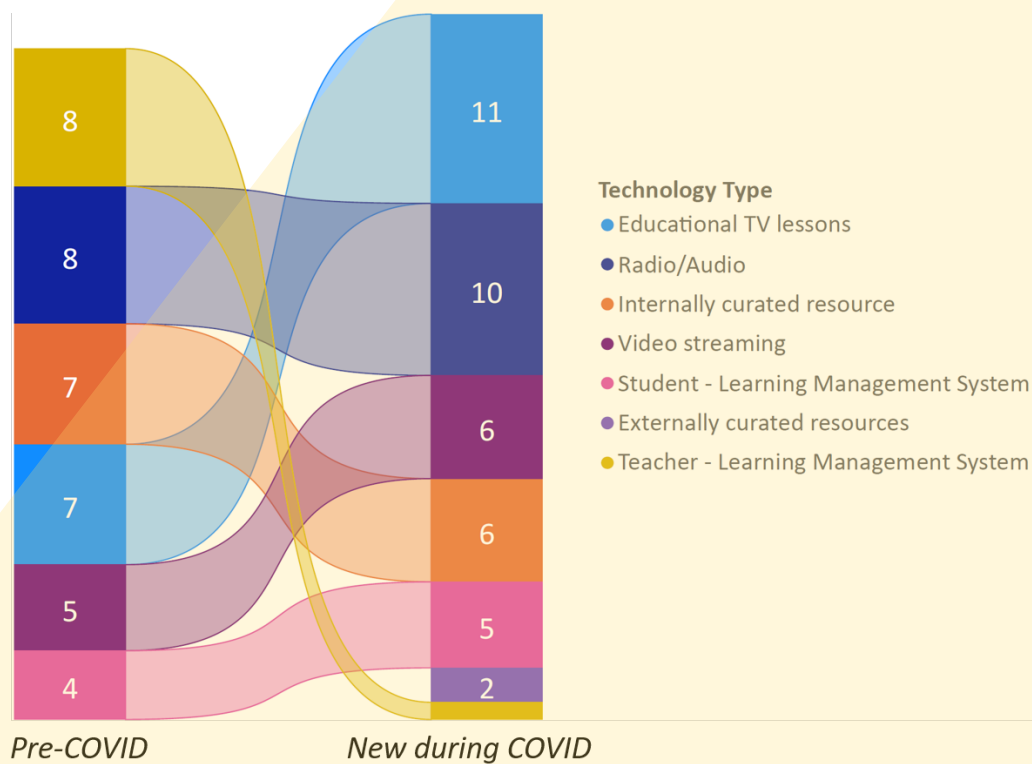
But, what specific technologies did these countries adopt?

“There was a moment of solidarity where many came together to help. (We) have seen some changes in methodology. (We have) seen some changes of mindset that can be applied after COVID. Teachers and students can learn by themselves, (and) can share lessons. Teachers now feel more comfortable in front of the camera. Schools can now see that they can use their own hand phones. (They) can use IM (Instant Messaging) to get students to join classes. (We've found) all sorts of good new practices.”  
 Director of the Department of IT,  
 Ministry of Education in Cambodia

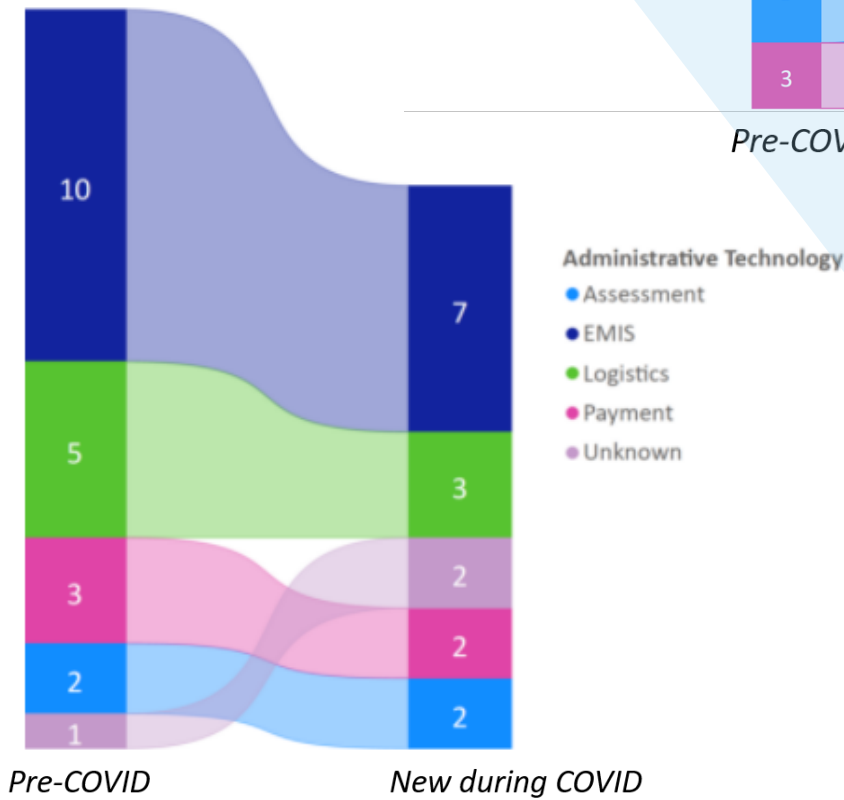
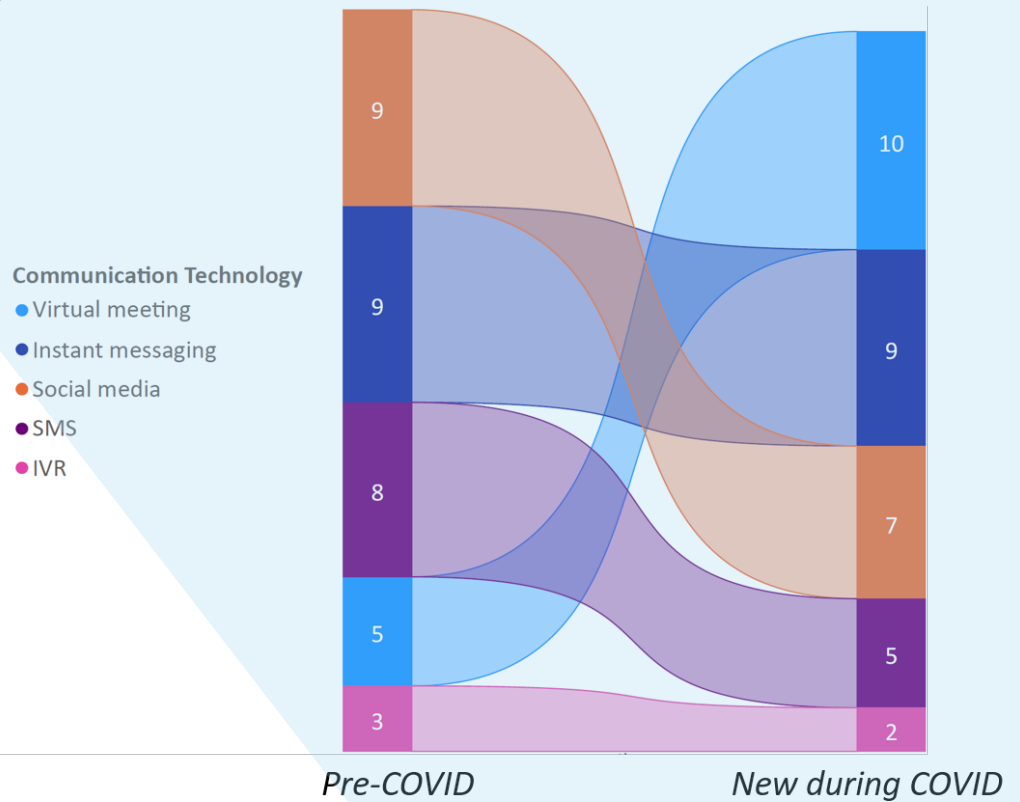
### Reliance on TV and radio for learning, but new technologies for communication.

*Learning technologies:* For the most part, countries doubled down on the learning technologies that were already in place in country pre-COVID, to develop new content for those mediums. New TV (92%) and radio (83%) programming were by far the most common learning solutions newly-implemented in response to COVID-19. New learning management systems and education resource collections were only introduced in Peru and Haiti. No virtual classrooms were registered pre- or post-pandemic.

The pandemic helped countries better identify needs around learning technologies. For instance, the Under-Secretary in Nepal reported the “establishment of an effective learning management system” as a priority going forward.



*Communication technologies:* During the pandemic, more than 75% of countries surveyed put in place new virtual meeting (10/12) and instant messaging (9/12) systems such as WhatsApp, Telegram, etc. More than half of the countries (58%) reported new social media and 5 of 12 countries also started using SMS for communicating with schools, teachers, or students. However, altogether the share of SMS, IVR, and social media decreased, while media-rich, one-to-one, and group communications via instant messaging and virtual meetings increased.

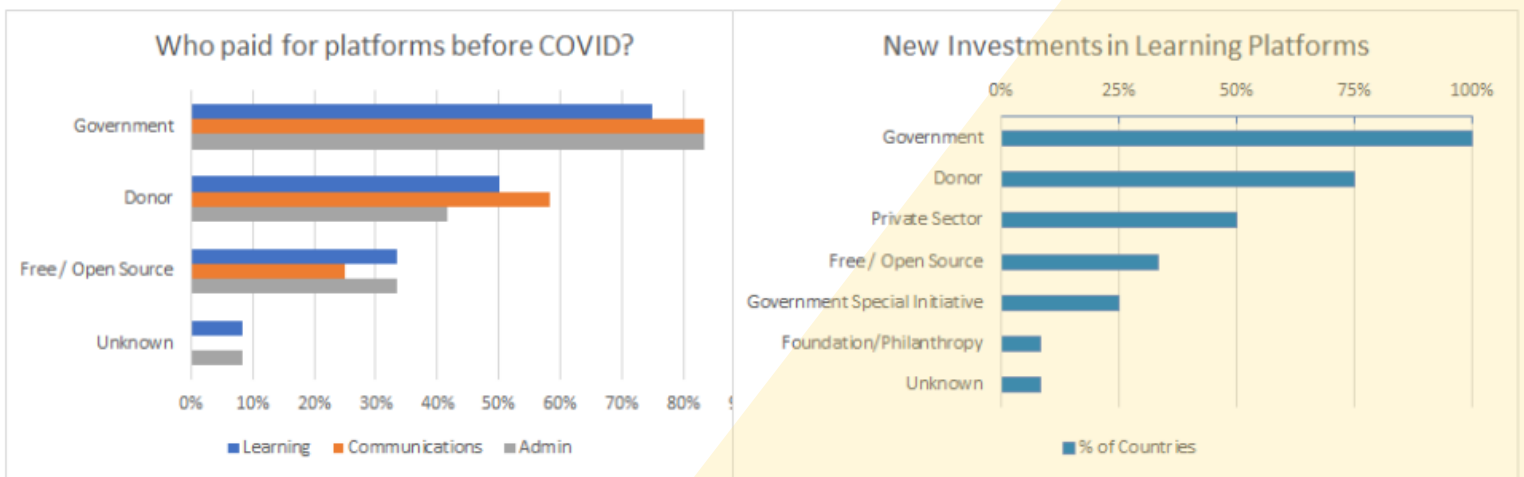


*Administrative technologies:* There wasn't significant change in the types of administrative technologies that were relied on during the pandemic. Assessments were turned to less during the pandemic. Cambodia and Rwanda reported instituting new administrative technologies such as EMIS, logistics and assessment platforms.

TV and radio programming can be expensive, as can the other learning, administrative, and some communication technologies. How were these initiatives financed?

**Changes were government- and donor-funded.** Irrespective of the technology category (learning, communication, or administrative), pre-pandemic technologies used by education ministries were primarily funded by their government and by donors. In response to the pandemic, every government surveyed put their own budget towards new learning technology platforms followed by funding from bilateral and multilateral organizations. Governments prioritized and realigned budgets to be able to support the investments in learning platforms.

Half the countries reported some investments from the private sector, but this continues to be a small fraction of the strategic EdTech partnerships governments formed as a result of the pandemic. Less than half the countries (42%) turned to a vendor for tech support and only a quarter of the countries entered into agreements with vendors for training.



While there was an increase in strategic EdTech partnerships as a result of the pandemic, they are still concentrated to donors and international NGOs, leaving room for the private sector, local NGOs, and universities to be tapped into more in the future.



With governments turning to fund learning technologies, did the pandemic lead to any structural changes in ministries?

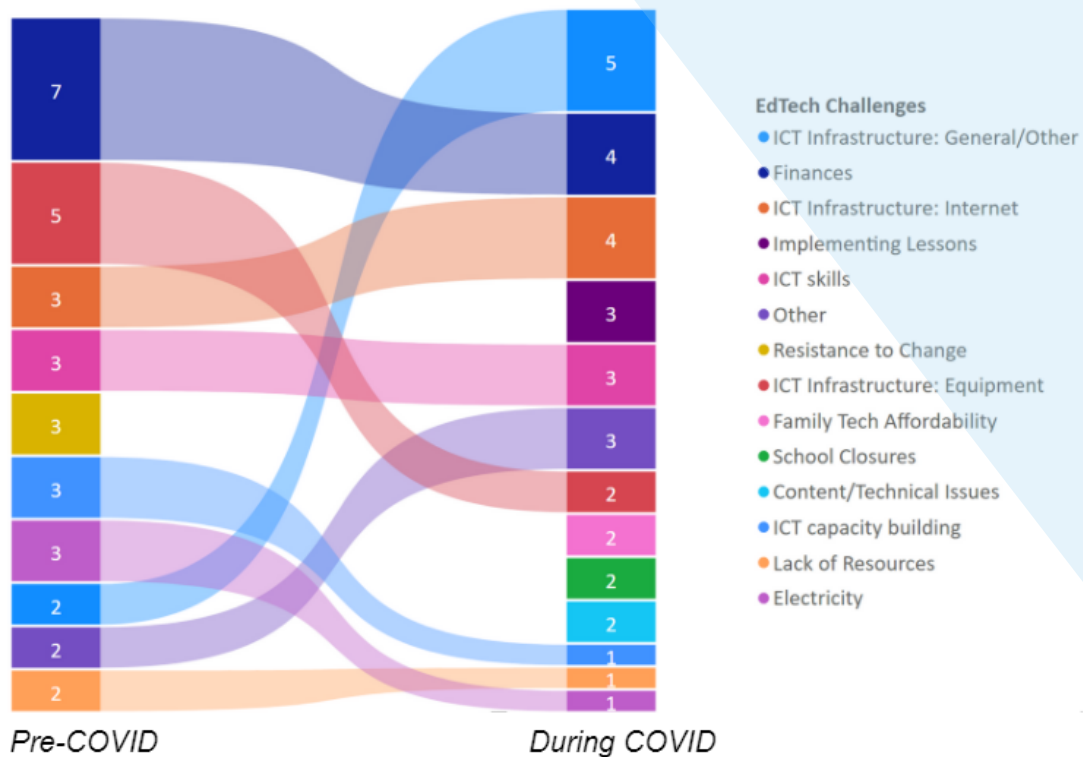
**Governments add EdTech staff and strategies.** Pre-pandemic, 67% of countries reported that their Education ministries had dedicated EdTech staffing that already engaged with student- and teacher-facing technologies. The pandemic led to 42% of the countries surveyed adding new EdTech staffing or divisions during the pandemic. The growing government capacity in EdTech is corroborated by reporting that more than half the countries are dependent on an internal group or person for training (67%) and tech support (58%) for the new learning platforms introduced.

The PerúEduca Coordinator at the Ministry of Education in Peru reflected that “the integrated work of the different offices and directorates” and the Team Lead in Ethiopia stated that “structural arrangement” and “government commitment” were among the greatest achievements during the pandemic.

In terms of policies, there was an uptick in national blended learning plans as a result of the pandemic, with half the countries reporting now having official learning plans for students as well as teachers.

With structural changes and policies coming about in favor of EdTech, was there a change in challenges in its roll out, adoption, and use?

**Old challenges persist, particularly with regards to infrastructure.** Prior to the pandemic, financial and/or budget concerns and lack of Information and Communication Technology (ICT) infrastructure, particularly equipment or devices and limited internet access, were reported as the biggest barriers to the adoption of EdTech for learning. These were followed by limited ICT skills, knowledge, and capacity. While financial issues seem to have been relieved some as government and donors turned to EdTech investments in response to the pandemic, the other challenges persist, with lack of infrastructure and internet access becoming the biggest challenges for education ministries, signaling concerns about education equity.





The biggest contrast between challenges observed pre-pandemic versus during-pandemic is the removal of resistance to change to adopt EdTech as a barrier, and the observance of new challenges, such as implementing lessons effectively using EdTech and syncing various EdTech media.

Much needs to be done to address these challenges, and governments are attempting to respond to them. For instance, in Nepal, the government has worked with mobile network operators to provide students and teachers a free Closed User Group facility with five GB of data per month.

With these challenges, is there still interest in EdTech when the pandemic will perhaps be behind us?

The ICT Coordinator for Basic Education in Peru shared their current challenges:

“Articulate with the other internal directions in the Ministry. Provide a comprehensive and synchronized view of the three channels such as radio, TV and web. That is, a single content. Provide a digital general learning environment for teachers.”

**Interest in hybrid learning and teacher training continuity.** Nearly all countries believe that usage of ICT media should persist as a mainstream part of its education service provision. Most ministries want hybrid or blended learning to continue permanently to complement in-person learning using TV, radio, or the internet. The Deputy Director of the Secondary Education Department in Cambodia has a vision for the future by “using blended learning with 60% face-to-face and 40% virtual”.

Virtual teacher training and EdTech capacity building stand out as other measures ministries are interested in continuing to pursue, particularly in Morocco, Burkina Faso, Cambodia and Peru.

Looking ahead, there is also some interest in preparing students for the future by introducing computers and computer programming (coding) in classes, such as in Ethiopia and the DRC.

## D. DISCUSSION

**COVID-19 as a catalyst for innovation.** The forced digitization as a result of COVID-19 and related school closures not only accelerated digital transformation but also sparked innovations that many education systems and programs hope to continue going forward. For example, many systems and programs turned to popular mobile messaging tools such as WhatsApp or Telegram for content delivery, coaching, and just-in-time support. MoEs, donor-funded education programs, and teachers adapted face-to-face training or curricula for remote, mobile-learning formats. They also found new ways to use mobile tools that learners, teachers, and education practitioners already had access to and blended these approaches with other modalities, such as radio, TV, and print. Oftentimes this also impacted teacher capacity, as the delivery of teacher professional development shifted to blended- and distance-learning formats. In spite of the struggles, teachers also gained tremendously from that experience, including new mindsets, skillsets, and instructional approaches they could apply in their own teaching.

**Strategic partnerships: finding alignment & balance to accelerate impact.** As findings from this survey suggest, many of these changes continued to heavily rely on donor funding or governments’ limited budgets, value-adding partnerships with the private sector and other organizations emerged to a lesser degree. While many private companies and software providers had offered preferential pricing schemes for their products during COVID-19, few governments appear to have relied on these to supplement their service offerings. Facilitating value-adding partnerships that allow all parties to fairly achieve their objectives remains an untapped opportunity to sustain capacity and services.

Related capacity and services that will be particularly important to address are data safety and security as well as student safety, as their time may be increasingly spent online. Strategic partnerships to help governments navigate ethical and security concerns need to be priority.

**Strengthening digital literacy across the education ecosystem.** As governments look to maintain and further develop hybrid learning models it will be imperative to integrate digital skills development across the education continuum.

Many teachers either have not been formally trained or had training that lacked explicit support for effectively integrating technology to augment their teaching and professional development. Such support would involve giving teachers knowledge and skills to select, evaluate, and integrate digital tools effectively as well as develop the digital literacy skills of their students to engage in online learning both safely and responsibly. As education systems and programs look beyond emergency response efforts to scale and sustain new distance and hybrid learning models, there will be an increasing need to provide teachers with targeted professional development and support around their use of technology for teaching and learning.

**Connectivity, infrastructure, & effective use.** The rapid, forced digitalization of education also exposed many inequities and underscored key challenges in digital access and effective use for learning. Technology and internet access remain major barriers in many countries and continue at the top of the list of challenges reported by respondents. As mentioned, private partnerships could also be better leveraged to expand access and services to remote communities and other local solutions explored. At the same time, inequity is not just a matter of access. Around the globe, student attendance and motivation to drive their own learning during COVID-19 was a challenge even where access was possible and digital literacy existed. Learning to learn, work independently, and teach remotely in an engaging way was not something most students and teachers have had to do in the past. At the same time, few households and communities were equipped to provide sustained support to help mitigate the situation. Furthermore, for many students, especially with disabilities and learning differences, the remote format added new and additional barriers to quality learning.

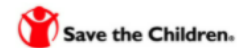
In spite of these challenges, many students and teachers have flourished, innovations have been tried and found to add value, and new partnerships have been forged. Governments have responded to this challenge with shifts in their organizational structure and service offerings and, as demonstrated by the findings of this survey, are willing to retain what works from the many new approaches and tools available to them to help offer a quality education and more diverse set of services and learning options to its students.



*Photo Credits: RTI International*

# BEC 2021 MEMBERS

The Basic Education Coalition (BEC) is a group of leading US-based organizations and academic institutions working together to promote global peace and prosperity through education.





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