

# Philippines Remote Learning Study

## FINDINGS BRIEF 3: USE OF TECHNOLOGY

### Context

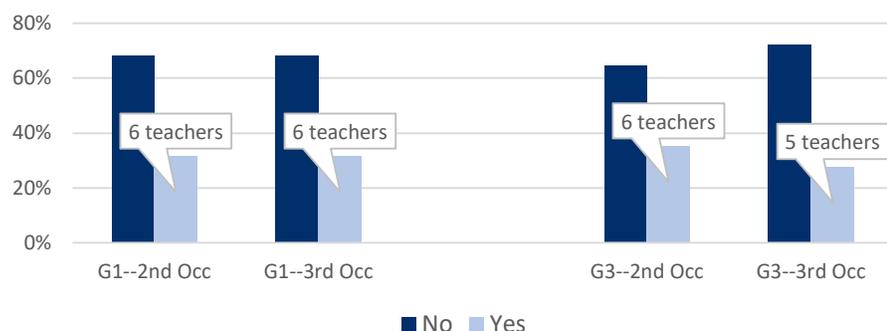
When schools in the Philippines closed due to the coronavirus disease 2019 (COVID-19) pandemic, the Department of Education (DepEd) and educational stakeholders quickly pivoted to using technology and various forms of distance learning modalities to ensure continuity of learning. Forms of digital technologies used to support learning and communication among school heads, teachers, and home learning partners (HLPs) included mobile messaging technologies, social media platforms such as Facebook, online tools for teaching and learning such as Google Classroom, and one-way communication media such as television and radio. These platforms were largely available through mobile devices rather than home computers. This brief discusses emerging findings from the remote study regarding the use of digital technologies for at-home learning; the ways in which it was both enabling and challenging for teachers, HLPs, and school heads; and how it **revealed the digital divide** and inequities in the Philippine educational system.

### Using Digital Technologies

Various types of digital technologies were used to support learning at home and communication among educational stakeholders.

**Realtime video and Internet.** The Internet was critical in allowing teachers, supported by school heads, to download and print DepEd self-learning modules (SLMs)—the most prevalent type of remote learning resource (see Brief #2 on teaching and learning materials). For their own professional development, 43% of teachers used Internet-based visual calling platforms like Zoom, Skype, and Google Meet to conduct learning action cell meetings. However, it is important to note that not all teachers could or did make use of these digital technologies. Only 8.3% of teachers used online multimedia like DepEd Commons and YouTube—2 teachers mid-year and 4 teachers at the end of the year. Only 8 teachers (22%) at most reported using visual calling platforms like Facebook or Google Meet to communicate with HLPs. As shown in Figure 1, below, in Grades 1 (G1) and 3 (G3) alike, only 32% of teachers ever used live remote instruction with students, and this showed little change between mid-year (2<sup>nd</sup> occasion [March]) and the end of the year (3<sup>rd</sup> occasion [June]). Occasion 1 (November) is not graphed because of low sample size from teachers, who were still being recruited into the study at the start of the year.

Figure 1: Teacher question: Do you ever do remote, live instruction with your students?



#### About the study

The Remote Learning Study was conducted during the 2020–2021 school year to investigate how mother-tongue-based multilingual education reading instruction proceeded in 20 schools around the country while classrooms were closed. Data was collected at three time points—November, March and June—from 20 school heads, 37 teachers and 79 home learning partners to gain insights on school administration, teaching and learning, and the home environment.

#### Key Data

Before schools closed 12% of schools had some kind of school-based technology. Four schools have purchased wifi connection since the start of the year. Most schools have had to buy, rent or get donations of printers and copiers for the SLMs.

This is one of seven briefs prepared based on the results of this study. See [shared.rti.org](http://shared.rti.org) for the full series of briefs.

#### More information

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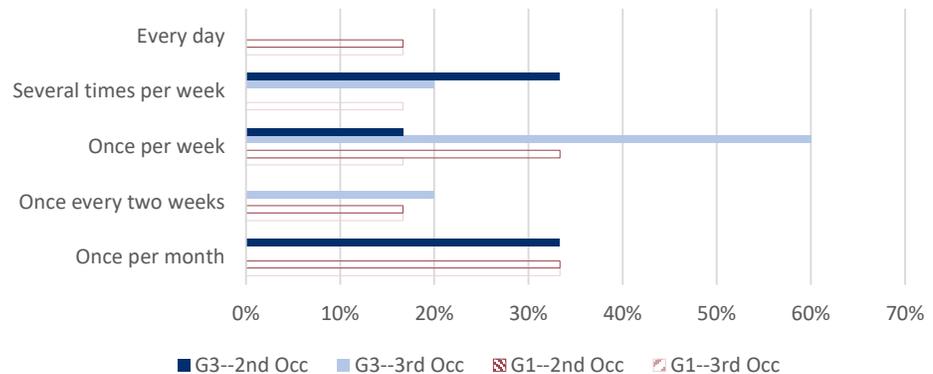
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Among the teachers who did say they conducted remote instruction using the internet (n=23), only teachers of Grade 1 said they did live classes every day. More Grade 3 teachers were holding live sessions at the end of the year (Occ. 3) than mid-year (Occ. 2).

Figure 2: Teacher Question: How often do you conduct live, remote classes?



*“Some of my teachers then had no computer knowledge, but we have to learn how to use Google Sheets, the DepEd links.” (School head)*

*“The most difficult part job of my job now is adjusting to technology but we are learning. I am learning.” (Teacher)*

*“Online classes are held every day via Facebook Messenger. The teacher reads a lesson and asks a student from the class to answer.” (Home Learning Partner)*

**Messaging apps.** 56% of teachers surveyed, on average across grades and time points, said they used short message service (SMS) to communicate with HLPs. 40% of teachers used SMS to provide feedback to students on their assignments, but in most cases, SMS was used in combination with other modalities such as Facebook, WhatsApp, and Viber messages or group chats. The social media platforms that were reported most often by teachers and HLPs were Facebook and Messenger, possibly because these platforms were zero rated (so they cost the user no data charges) in the Philippines. In one case, class advisers created group chats in Messenger and groups in Facebook, and these applications functioned as an e-learning management system for an easy flow of communication between teachers and HLPs. School heads also used a variety of modalities to communicate with teachers and HLPs including video calling platforms like Zoom, Facebook, Skype, and Google Meet. Two schools reported using two-way radio to communicate with teachers and HLPs.

**Broadcast technology.** Only 3 teachers made use of television broadcasts, but 13—up from 9 mid-year—used radio broadcasts. Parents from 6 different schools mentioned use of DepEd TV during interviews, as did teachers from 4 schools out of 20. Comments suggest that very few teachers aligned students’ lessons to television and radio broadcasts, but instead encouraged students to watch selected episodes and tune in to scheduled lessons for their grade level. Division offices also supported this by creating their own video lessons. In Region IX Zamboanga Peninsula, the Division of Isabela City produced its own “TELEdukasyon.” The different mother tongues of the region were used in the contextualized video lessons available online and on local cable TV.

## Technology and Literacy Instruction

Teachers who could use technology found creative ways of doing so; for example, one-on-one oral reading lessons were conducted using video calls or voice calls, or parents would submit video recordings of students for teachers to review. Teachers prepared reading materials and set a schedule prior to each student’s reading exercise. This practice gave both teachers and parents peace of mind that the students were being assessed by authorities. A common concern of teachers was the uncertainty of whether students were really learning and answering the modules themselves. (See Brief #7, *Literacy Instructional Practice*).

*“Before, teachers are the ones who teach their children about the lessons but now their children are the ones who teach them in creating video lessons. And that's the 21st century skills that the teachers need to develop.” (School Head)*

*“Some teachers are having a hard time learning and using technology/ICT for online classes so I advise them that they can go to school—There's a computer laboratory there where some staff can teach them or assist them while they conduct online classes” (School Head).*

*“We also need gadgets and modern technology. We don't have television and electricity. We are really struggling. We can only access Messenger. It's hard for us to download.” (Home Learning Partner)*

No more than 2 teachers in any grade or at any time point found offline multimedia to be among the most useful strategy for literacy, probably because this was also not widely used. On the other hand, online media like YouTube was considered very useful by more Grade 3 teachers than Grade 1 teachers, and the percent of teachers finding it useful increased from 12 to 25% from mid-year to end-of-year. More teachers in Grade 1 and Grade 3 (between 3 and 6 at each time point and grade) found radio broadcasts to be most useful and one teacher at any grade/time point found television to be most useful. In interviews, school heads and teachers revealed that many of them did not know how to use digital technologies and had difficulty adjusting to their use. However, they all turned to information and communications technology specialists, and sometimes their own children to help them create video lessons, use learning management systems, conduct online classes, and participate in online webinars for their professional development.

## **Digital Divide**

Findings on the use of digital technologies during school closures reveal the inequities and digital divide in the education of Filipino children. For example, in the National Capital Region, where devices and the Internet are more easily accessible, the Division of Pasig City was given tablets and laptops by the city government so that each child had a device loaded with offline resources. Online learning was utilized, and reading instruction was done on video conferencing platforms such as Google Meet. However, very few schools and families in our sample outside of Metro Manila had such an opportunity. Only 13% of school heads stated that they already had computers or tablets for students of any grade in their school. Most families did not have broadband Internet connections, stable cellular signals, and a dedicated smartphone or other device for the student.

Even if devices were available, some schools and families did not have reliable electricity to power the devices needed for communication and printing materials, nor sufficient internet speed for downloading materials. HLPs required financial assistance for mobile load allowances to be able to attend online classes, send videos of performance tasks, download learning materials, and open media links sent by the teacher.

## **Recommendations**

- Schools and teachers should be encouraged to use a combination of sustainable low, medium, and high-tech approaches to teaching to ensure students are learning at home but prioritize the simplest technologies that are available and familiar to teachers, students and parents.
- Schools should make certain that teachers have the opportunity to learn how to use digital technologies for their own professional development and for teaching. At minimum, school orientations should include training on the use of digital technologies for parents along with guidance on the self-learning modules and weekly home learning plans.
- Parents and teachers should be given load allowances to facilitate communication and online access.
- Over the course of the school year, DepEd expanded the availability of educational television and radio. For young learners who cannot yet read books or other self-learning modules, this media can ease the burden on parents and provide important educational enrichment for children.
- Teachers need to be made aware of how to access DepEd TV and other digital media for reuse.