

Digital Resources and Pandemic Pedagogy

New research highlights key opportunities for expanding teacher supports during COVID-19 and beyond



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This blog post is part of a series unpacking findings from the American Instructional Resources Survey, a project of the RAND Corporation, and other RAND surveys related to teaching during the pandemic. You can read the first post in the series [here](#), and you can read more about the survey

[here](#).

While a new school year is fast approaching, the impacts of a uniquely challenging period still remain. With many schools having just ended the year still navigating instruction online, in-person, or in hybrid models, barriers to accessing and using digital instructional materials have become front and center in conversations among students, teachers, and school leaders. The [previous post](#) in this series explored some of these barriers, pulling recent data from the American Instructional Resources Survey (AIRS), a project of the RAND corporation. This third and final post will draw on data from these surveys to explore opportunities for meeting the new and growing demands of pandemic pedagogy.

One of the biggest challenges highlighted by the AIRS data centers on students' exposure to online instructional materials. Despite a growing reliance on digital and online learning materials during the pandemic, a [new report](#) from researchers at New America and Rutgers University shows that while internet connectivity rates are significantly up from 2015, more than half of U.S. families are still underconnected. Of families that have internet service at home, 56% said their service is too slow. The 2020 AIRS data underscore these trends as a major problem: in the survey, 21 percent of teachers surveyed reported that 50 percent or less of their students have home internet access. In addition, in response to the COVID-19 Survey also administered to teachers in Spring 2020, 72 percent of teachers reported never receiving training on how to provide accessible instruction for all students, regardless of what technology they had at home. At the same time, 82 percent reported that they sent schoolwork home to students with the expectation that it would be completed online. Furthermore, when RAND surveyed teachers once more in March 2021, 69 percent indicated that their students experienced technical difficulties at least once a week, while 55% of teachers themselves reported experiencing technical difficulties once a

week or more.

These findings paint a clear picture: reliable, high-speed home internet is a necessity for K-12 remote learning and efforts to support its implementation are urgently needed. Fortunately, a few pieces of recently-passed legislation may make it easier for schools to help get students online. One possible opportunity is through the [Emergency Broadband Benefit](#) (EBB), a Federal Communications Commission initiative that passed late last year. (See the Open Technology Institute's [FAQ](#) about this new program.) Through the EBB, qualifying households can receive a discount of up to \$50 per month towards broadband service. Those on tribal lands may receive up to \$75 per month. Families may be eligible via a number of criteria, including having a child enrolled in their school's free and reduced-price meals (FARMS) program—either individually or as part of a community eligibility program. This criterion is especially critical because, as the AIRS data show, students enrolled in FARMS are less likely to have access to home internet or devices. Schools and individual educators can play a critical role in making sure that families know about the EBB and helping them gain access to the discount.

Beyond helping students access online instructional materials, schools should recognize that teachers need the support necessary to implement materials effectively *and* the autonomy to manage their own teaching. (New America has previously written about educator autonomy [here](#)). Even prior to the pandemic, most teachers indicated in response to a survey in Spring 2019 (fielded prior to the start of the pandemic) that training on how to use main instructional materials happened only one to three times a year, if at all—with little to no specific focus on online instruction. Roughly 70 percent of teachers reported professional learning for their main subject to be only minimally to moderately helpful to improving their use of instructional materials. These patterns of training persisted throughout the pandemic as teachers reported similarly limited COVID-19 teaching training during the

summer and throughout the 2020-2021 school year, as less than half of teachers surveyed indicated receiving much training beyond how to use learning management systems or provide engaging instruction. According to teachers RAND surveyed in Spring 2020, between 60 and 70 percent had not received any training since the beginning of the 2019-2020 school year on how to provide distance learning opportunities that were engaging and motivating, supported students' social and emotional well-being, and were accessible to all students. With the exception of these two areas of training, many teachers were largely left to navigate the new demands on instruction on their own.

Additionally, while the 2020 AIRS data shows that 89 percent of teachers surveyed feel state-aligned curricular standards prepare students well for their futures, many still believe their students need something else beyond the traditional curricular materials (i.e. district-developed curricular content, textbooks, and learning platforms). This demonstrates that teachers need more professional learning opportunities that not only help them with online instruction. They also need training on using digital main curricular content related to standards, potentially also on how to teach with new, innovative forms of content that may not have been traditionally implemented in schools.

Moving forward, efforts to develop teachers' digital fluency must go beyond the mere ability to operate devices and online learning portals. Schools should equip teachers with the skills and knowledge necessary to utilize digital materials to promote engaging student learning. One tool with potential for promoting and assessing teachers' competencies is the use of high-quality [micro-credentials](#), paired with resource support and relevant learning opportunities. High-quality micro-credentials verify teacher demonstration of a small, discrete, and research-backed competency by assessing how well teachers can apply the skills when working with students

(based upon a validated rubric). Microcredentials come with learning resources and assessments offered digitally in an asynchronous, self-paced format, which allows teachers to engage with them when and how it best suits them in order to help facilitate their own continued learning.

By promoting application of new knowledge and techniques, offering opportunities for self-reflection and improvement, and providing formative and evaluative feedback from other educators and school leaders, micro-credentials [catalyze a "cycle of inquiry"](#) likely to drive more authentic, engaging, and targeted professional learning that increases teachers' satisfaction and impact on students. Micro-credentials can also help identify which teachers possess discrete digital learning competencies, enabling schools to better leverage teachers that do, and provide more targeted support to those who are still learning and developing their skills.

The AIRS data highlights a number of challenges that go beyond these statistics and findings—they indicate very real strains on educators, students, and administrators alike. While the pandemic has presented unforeseen and unprecedented challenges, it has also shed light on systems and processes that have needed addressing long before COVID-19. With the possibilities of new funding provisions and discounts for technology access, as well as better teacher support and training availability, many of these challenges may also prove to be key opportunities moving forward.

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