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Ten Ways to Make Online Learning Work

A Guide to Improving Education in the Time of COVID-19

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Acknowledgements

This paper is a product of the COVID Collaborative, a national assembly for the COVID-19 crisis, bringing together leading experts in health, education, and the economy to support and empower state and local leaders to take unified action to turn the tide on the pandemic.

The COVID Collaborative wishes to acknowledge the great input from and collaboration with Michael Casserly, Executive Director of the Council of the Great City Schools; Seth Gerson, Program Director in NGA Education of the National Governors Association Center on Best Practices; and Dr. Carissa Moffat Miller, Executive Director of the Council of Chief State School Officers.

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Foreword

As former U.S. Secretaries of Education in both Democratic and Republican administrations, we understand that the COVID-19 pandemic is both a national health crisis and an education crisis.

While COVID-19 has affected the lives of more than 50 million children, it has exacerbated the challenges facing our most vulnerable students. For many, including low-income students, students of color, students with disabilities, students experiencing homelessness, and English learners, school is not only a place for learning, but also a source of meals, health screenings, and the academic, social and emotional supports needed to succeed in school, work and life.

Communities should reopen schools as quickly as possible, but only when it is safe and responsible to do so. Those decisions should be made by school leaders in partnership with public health officials evaluating community positivity rates, cases in schools, and local healthcare capacity, which may at times necessitate schools remaining closed and students continuing to learn online. Some students and faculty with underlying health conditions may also need to continue with online instruction given the additional risks they face with COVID-19.

The nation must act with urgency and purpose to ensure all students have access to high quality online learning opportunities. This begins with ensuring all students have the devices and connectivity they need to participate in online learning. As long as the digital divide remains, it stands as a failure of national will that translates into greater educational inequities.

We must also work to improve the quality of online learning itself. Students need – and deserve – courses and lessons that are rich with interactivity and engaging content. Teachers need – and deserve – more support structures to help them succeed in this new form of instruction. We must act with intention to ensure our most vulnerable students are positioned for success, given the challenges they face.

We are part of the COVID Collaborative, a national assembly of experts and institutions in health, education and the economy that works to support decision-makers and the associations that represent them to tackle the COVID-19 crisis. This paper from the former Directors of the Office of Educational Technology at the U.S. Department of Education across administrations shares expertise and recommendations to help make online learning work better in this time of national crisis. We present this consensus in partnership with the National Governors Association, Council of Chief State School Officers, and Council of the Great City Schools.

This national crisis demands that we innovate toward a better future. With the futures of millions of students on the line, we don’t have a moment to lose.

Arne Duncan, John King, Rod Paige, Richard Riley and Margaret Spellings

The Challenge

As COVID-19 enveloped the United States, governors, mayors, superintendents, school boards, and public health officials took unprecedented measures in the spring to slow the spread of the virus. Among these actions was the closure of schools, disrupting the education of more than 50 million students.

The suddenness of these closures left teachers and school leaders with little time to prepare for the remote learning that would follow. This shift led to a dramatic increase in the use of online tools such as video conferencing, learning management systems, and digital content. By April, more than 71 percent of schools were in districts with a remote instructional program in place.

Despite these best efforts, too many students were cut off from the services and instruction they desperately needed. As with so many other effects of COVID-19, the impact was disproportionately felt by low-income students and students of color. Children who lacked connectivity could not participate in their school's online learning. Critical support services for children, including access to free and reduced-price meals, were disrupted and in some instances were inaccessible for students. Teachers were forced to adjust to teaching in new styles with new technology without the supportive professional development typically needed to ensure success.

These disruptions resulted in a cascade of learning losses. McKinsey estimates the instructional disruptions in the spring led to nearly 7 months of lost learning on average, with black students losing 10 months and low-income students losing as much as a year. The Center for Research on Education Outcomes (CREDO) at Stanford estimates that students lost as much as 183 days of learning in reading and 232 days in math.

It is critical to have students back in their normal educational settings as soon as it is safe and sustainable to do so. School leaders should work with public health experts to determine when it is safe to reopen schools based on the best current understanding of the risks that coronavirus poses for children and educators as well as the community transmission rates in the areas in which schools operate. These health risks must also be balanced with the risks of students not returning to more structured classroom settings, including the loss of learning, the mental health issues surfacing among young people, and the other important safety net services provided by schools.

School leaders and teachers worked over the summer to develop reopening plans based on the guidance provided by public health officials. Many had hoped to reopen for in-person instruction, but surging cases of COVID-19 in communities along with concerns about the safety for students, educators and administrators led many to reopen remotely or in a hybrid model in which students learned in class some days of the week and online other days.

According to Education Week estimates, 74 percent of the 100 largest school districts chose remote learning only as their back-to-school instructional model, affecting more than 9 million students. Students of color were more likely to be learning remotely, putting them potentially at risk of falling further behind. Nearly 79% of Hispanic students and 75% of Black students were in remote learning compared to only 51 percent of white students.

With the recent resurgence of coronavirus infections across the country, as much as we would like to safely reconvene in-person learning, online learning will likely make up part or all of student learning for most schools for the foreseeable future. This makes it imperative that we improve the quality of online learning for students and educators this year. Intentional focus, planning, and resources are needed to ensure that online learning closes – not widens – the inequity in learning that students experience. To that end, we offer 10 ways to make online learning work better, based on concrete data and evidence.

The Ten Ways

1. Connect All Learners

Home connectivity is no longer a luxury but a necessity for teaching and learning during COVID-19. There are more than 9 million low-income students who lack both the devices and connectivity needed to participate in online or hybrid learning models. An Education Trust parent poll revealed that 38 percent of low-income families and 29 percent of families of color in California are concerned about access to distance learning because they don't have reliable internet at home.

This divide represents a national education emergency. Without adequate devices, connectivity, and technical support, students are essentially cut off from their education at a time when they need it the most. Bridging this divide must be a top priority and will involve cross sector partnerships.

Every student should have a device and reliable high-speed Internet access. This is critical not only to support remote learning, but also to enable the hybrid models many districts are using to accommodate social distancing guidance from the CDC.

One of the most important steps in solving this pressing equity challenge is for state policymakers to conduct high-quality data collection to identify which students lack the devices and connectivity they need. The Council of Chief State School Officers (CCSSO) has partnered with EducationSuperHighway to develop a blueprint outlining the types of data that are most needed to understand the connectivity gap in each state.

The federal government has a responsibility to provide funding to address this gap, estimated to cost at least $4 billion. Just as the United States marshaled the will and resources for rural electrification in the 1930s, Congress should give the FCC the authority and funding to address the connectivity gap as quickly as possible, including leveraging existing programs like E-rate.

Governors can also use state funds and federal relief funds to purchase devices and connectivity for students. Tennessee devoted $50 million for a grant program that allows districts to pay for laptops, devices, and wi-fi hotspots. Mississippi is using federal dollars to provide a device for every child and to expand connectivity. And the Commonwealth of Massachusetts and local broadband providers have partnered together to connect thousands of residents to the internet.

School systems are also employing creative strategies to connect their students. The Utah Schools for the Deaf and the Blind is issuing portable Wi-Fi hotspots with a particular focus on students living on the Navajo Reservation in Southern Utah. Castleberry Independent School District in Texas even purchased their own transmission towers.

Public-private partnerships and philanthropy can also help. T-Mobile just recently announced their Project 10Million plan that will help close the homework gap by funding hotspots, data, tablets, and laptops to low-income children. The K-12 Bridge to Broadband partnership between schools and cable providers gives schools broadband access at discounted rates to low-income students who need it most. Verizon Innovative Learning Schools connects more than 200,000 low-income middle school students with devices and data plans. AT&T's Distance Learning and Family Connections Fund has contributed $10 million to support parents, teachers, and students during school closures and distance learning. A strong public-private partnership is needed, and is needed now, to close the digital divide and connect all students to learning. Examples of promising practices are provided in a recent report from Common Sense Media, Boston Consulting Group, and EducationSuperHighway that provides guidance for states and districts along with promising practices.

2. Support Teachers

It is no secret that most teachers have been feeling overwhelmed and unprepared to take on the daunting task of pivoting to online learning. Early data suggest that the pandemic is taking its toll – driving educators out of the profession. The situation is particularly challenging for new teachers, who in the past relied on close contact with veteran mentors to build skills and gain confidence. But many of those new teachers are now essentially on their own as they navigate their first year.

That is why supporting teachers is a critical piece of the puzzle, not just to retain today's experienced teachers, but to enable the success of our newest cohort of talented educators. Supporting teachers starts with providing them the professional development resources and tools they need to get up to speed on effective online learning, and then granting them the appropriate credits and compensation to reward them for their efforts.

In particular, support for teachers should focus on how to engage students online, conduct authentic assessments, support students with special needs, and assess student progress. Teachers will also need support in developing strategies to meet the social and emotional learning needs of students in a remote setting during a time of economic instability, and heightened anxiety, fear, and stress. CASEL worked with 40 partners to develop such strategies as schools reopen in various forms during the pandemic.

Engaging students in online learning environments at first blush seems more challenging than in face-to-face settings because facilitating student interaction and collaboration online requires different approaches. Fortunately, the underlying principles of effective learning are the same: allowing students to solve problems, design solutions, have voice and choice in their learning and work with experts and peers from around the world. These are the hallmarks of the ISTE Standards for Students, a framework for innovation in education. While these standards are designed to prepare learners to thrive in work and life, they hold another advantage: they engage students in learning.

Whether online or in person, when students are creating, inventing, collaborating and engaging in project-based learning, they are honing higher-order thinking, practicing real-world skills, and therefore immersing themselves in the learning process.

The good news is that there is no need to reinvent the wheel. The common refrain “nobody knows how to do this,” isn’t actually true. Online learning has been successfully implemented at scale long before COVID-19 and there are research-based best practices to follow. District leaders and coaches should be reaching out to experts, consulting learning science research, and finding exemplars of what works. CASEL has also worked with 40 partners to develop social and emotional strategies as schools reopen in various forms during the pandemic.

Schools should create time and space for this kind of professional development and reflection. For example, Columbus City Schools (CCS) delayed the start of the 2020–2021 academic year by two weeks to provide virtual professional development to all 9,000 staff members. CCS partnered with EDC to assess the needs of teachers and then design a two-week online Rise Up learning experience that included training on topics such as social and emotional learning, the art of teaching online, performance assessment, and supporting emergent multilingual learners.

If teachers are not prepared to provide a high-quality online or blended learning experience, connecting students at home may be an expensive endeavor with little educational benefit. Finally, it is important to note that teacher preparation programs are not preparing new teachers for the realities of their jobs. Even before COVID-19, half of the graduates from teacher preparation programs shared that they did not feel equipped with the technology use skills that their districts were expecting them to have (nearly 20 percent said they received no preparation at all). Schools of education must redesign their curriculum to make sure the critical skills of teaching in a digital world (either online or in the classroom) are being taught before new teachers show up in their new classrooms. Supporting teachers through this transition is an investment that pays huge dividends for students and families during COVID-19 and far beyond.

3. Align Online Programs with Quality Standards

Schools have the benefit of learning from the experience of educators who have been at the forefront of online learning. Many of their lessons have been captured by organizations such as the International Society for Technology in Education (ISTE), the Aurora Institute, the State Education Technology Directors Association (SETDA), and the National Standards for Quality.

Children and parents need to know that this school year will be more structured than the last. In order to promote online learning that challenges learners to succeed, schools should set high expectations, ensure they are using high quality instructional resources, make attendance and grading criteria explicit, and frequently communicate feedback to learners.

Crucial components of high-quality online courses include:

1. **Course review and support**

    - A syllabus and a course overview are provided to students with explicit expectations for both students and teachers. Expectations regarding lesson pacing, assignments, and due dates are clearly stated.
    - Options regarding how and when to communicate with the teacher are outlined (e.g., if it should be through the learning management system, texting, emailing, etc.).
    - A “Code of Conduct,” including “netiquette” expectations, copyright and academic integrity expectations, is provided.

2. **Course design**

    - Instructional materials are aligned to state standards and present content in an effective, engaging, and appropriate manner.
    - The course is engaging with various activities for learners to show their strengths and uncover gaps in understanding.
    - The course provides opportunities for on-going feedback.
    - The online course should be updated on a continuous improvement cycle for effectiveness based on the findings from ongoing reviews.

3. **Leveraging the community**

    - The school is drawing on tutors and mentors from the nonprofit community.
    - Double-dosing of instruction in reading, math and other subjects is provided to help students catch up on learning that may have been lost in the spring.
    - Reaching out to organizations such as Communities in Schools, City Year, Mentor, Big Brothers Big Sisters, Boys and Girls Clubs, and others to provide additional academic, social and emotional supports to children and youth.

Finally, schools must attend to the increased risk to student privacy and data security that online learning presents by having so much personally identifiable student information flowing digitally. School leaders need to ensure that the online learning tools they use comply with federal student privacy laws, data security best practices, state legislation, and also industry best practices. They also need to ensure that educators are using these tools properly. This is not only a concern for back-end security, but also must translate into teacher training, procurement policies and practices, and helping students to understand what it means to be a responsible digital citizen. Fortunately, there are resources, guides, and online courses on these issues available through groups such as the Center for Democracy and Technology, the Future of Privacy Forum, the Data Quality Campaign, and Common Sense Media.

4. Rethink Use of Instructional Time

There are two primary types of online learning: synchronous and asynchronous. Synchronous learning most closely resembles live classrooms. Teachers use video conferencing technologies to engage students in a similar way to how they might teach in a live face-to-face setting. The strength of synchronous learning is the ability to have discussions and conversations in real-time. The challenge is that it requires all students to be online at the same time. Synchronous learning technologies can also be used to provide one-on-one tutoring or small group discussions.

Asynchronous learning allows students to complete their assignments without being connected with teachers in real-time. This type of learning can include students watching recorded lessons, completing assignments on their own, or working through online activities and lessons. This offers students the convenience of being able to turn to materials when they have time. Students even have the option of rewinding sections to deepen their understanding of the content or just to review it. The challenge is that asynchronous learning alone inadequately fosters interpersonal relationships between students and their peers, and between students and their teachers.

Early evidence suggests that most students received little synchronous interactions with their teachers in the spring. The Census Household Pulse Survey found that only 3.4 hours out of seven days were spent on live virtual contact between students and their teachers in the spring. Other early evidence suggests there are also demographic disparities. According to an Echelon Insights survey of parents, 52 percent of high-income parents reported their children had live regular lessons, compared to just 38 percent of parents in families making less than $50,000. A survey of parents in Tulsa, Oklahoma found that nearly 1 in 5 children never communicated with their teacher during distance learning.

Going forward, schools will need to rethink how they structure the online school day to take advantage of the strengths of both synchronous and asynchronous learning. Asynchronous learning could work well not just for independent study, but also for assigning online lessons offered by various providers. Schools can then use synchronous learning for class discussions or small group work. Synchronous learning also gives schools the chance to work on social and emotional learning activities. Teachers could offer students “office hours” when they are available for extra assistance. Learning schedules might also include live check-ins throughout the day with independent learning happening in between.

When utilizing online learning methods, the learning activity should match the strengths of the technology. For example, the Silicon Schools Fund noted that their most successful schools used a combination of the two approaches: 30-120 minutes of daily live instruction and 90-180 minutes of scheduled flexibility in the form of independent work, recorded lectures, office hours, or online learning software. Some schools, like Success Academy, are making sure that their students receive live instruction five days a week. Sometimes this is done through one-on-one video conferences and other times by phone. Ultimately, how synchronous and asynchronous learning is balanced depends on the district and the school. Instructors and school administrators must come together to determine what is best for their students.

5. Foster Connections and Relationships

Learning is fundamentally relational, between students and teachers and among students themselves. One heavily-cited 2011 meta-analysis of 99 studies — with a sample encompassing about 130,000 students and 2,800 teachers — concluded that teacher-student relationships have substantial effects on engagement and achievement, particularly for students from disadvantaged economic backgrounds and those with learning difficulties.One of the greatest challenges with online learning is building these relationships given the limitations of technology. It is important that every online program actively fosters connections and relationships.

Survey instruments like the University of Chicago's Consortium on School Research 5Essentials Survey, PERTS Copilote-Elevate survey, or the Tripod 7Cs Student Survey can help schools gauge whether or not teachers are strengthening their relationships with their students. This sort of qualitative data is instrumental in revealing the strength of student-teacher relationships at the school level.

To foster personal relationships in an online setting, some schools are making sure that every child is connected with a live adult at least once a day. For example, Phoenix Union High School District implemented an "Every Student, Every Day" initiative, in which school staff reach out to all students on a daily basis to check in and relay information about needed resources back to the district. Gradient Learning also launched Along, a free interactive video journal that helps teachers foster relationships with their students.

Education Week recommends establishing virtual office hours, encouraging class engagement through online platforms, facilitating active class discussion in virtual lessons, and capturing a unique teaching style and personality to help foster personal relationships and keep children engaged in learning. Search Institute, a nonprofit that works to strengthen communities, recommends expressing care and belief in students' abilities, challenging students to grow and get better in their studies, providing support structures that help students complete tasks, treating students with respect, and connecting students to people and places that broaden their vision of the world. These strategies are especially necessary in a time that is so uncertain for students.

The higher levels of stress that students are experiencing now can also dampen their ability to learn, which means schools benefit greatly from following practices to lower levels of stress and increase the sense of belonging in these new learning environments. The Council of Chief State School Officers includes recommendations in the Wellbeing and Connection section within their recently released Restart and Recovery: Considerations for Teaching and Learning guide.

The evidence shows that we have a social gate to learning and interactions with teachers and other adults matter significantly in the learning and development of students.

6. Assess Learning Needs

Teachers, schools, and school systems will face unprecedented challenges when schools eventually reopen after pandemic-related closures. One of the primary challenges will be developing strategies to identify and meet the individual needs of students who had dramatically different experiences while schools were closed. The Center on Reinventing Public Education (CRPE) assembled a panel of experts on diagnostic assessments to develop recommendations for the best ways to use this information to meet student academic and nonacademic needs.

Assessing learners as part of continuous feedback is challenging in an online setting. Teachers do not have the ability to walk around the classroom to observe student interactions and work. Instead, teachers need to consider how to use online learning tools as opportunities for observation, as well as how to leverage learning management systems for students to submit work.

It is important that assessments are linked to lesson objectives or competencies. Students need explicit rubrics that outline how their work will be graded. Some learning management systems can actually make this easier than traditional classes through the use of student dashboards that show progression and mastery. As long as goals are clearly outlined, students have a better chance of receiving adequate feedback and succeeding in an online setting.

Online learning also affords an opportunity for more authentic assessment approaches. Teachers are spending too much time trying to prevent cheating online. Instead, they could focus on redesigning assessments to be more collaborative, more personalized to the interests of students, and more focused on critical thinking and inquiry. If working with peers, parents, caregivers, and mentors was encouraged instead of punished, schools could increase collaborative learning time while greatly reducing the time they spend policing student behavior.

Teachers also need professional development around assessing students in online settings, where checking for understanding and evaluating student progress can be more challenging. A lot of information that teachers rely on in face-to-face settings — body language, facial expressions, and inattentiveness — are more difficult and often impossible to gauge when students appear as one tiny square on a computer screen — or worse, a faceless black box. In addition to using digital assessment tools (polling software, online quizzes, etc.), educators need support structures for assessments that leverage the student's environment (such as making videos to explain a concept, interviewing a family member, building a prototype, etc.). Many educators need to learn strategies for moving away from testing methods that just don't serve students well in online and blended learning.

The Council of Great City Schools has also produced an instructional framework for district curriculum leaders and staff for addressing unfinished learning and learning losses, as well as a review of essential skills and content in English language arts and mathematics to support access to grade-level content in key grade transitions for all students.

7. Identify Students Not Being Served

The experiment with online learning this spring surfaced problems with students not participating in their online schoolwork. Los Angeles Unified School District analyzed data from their remote learning platform and found that only about 36 percent of middle and high school students submitted work, took tests, or posted on a discussion board. Forty percent of their students never logged in once. More than 50,000 Black and Latinx middle and high school students did not regularly participate.

Other data have revealed similar alarming trends and disparities. A Texas Education Agency study revealed that more than 600,000 students did not complete assignments or respond to teacher outreach during the spring. As of September, only 9,000 of the Salt Lake City School District's 20,995 students had signed onto the learning portal.

Even before COVID-19 struck, students in low-performing schools had graduation rates of 41 percent on average, compared to students in other high schools who had graduation rates of 90 percent or higher. Students experiencing homelessness, English language learners, and students of color all had lower graduation rates than their peers. COVID-19 has exacerbated these challenges.

To address these issues, many districts are starting the school year with Learning Management Systems (LMS) that help teachers choreograph online learning. These systems allow teachers to push out assignments to students, organize content, videos, and activities, as well as facilitate communication. In addition to these benefits, LMS can provide early warning indicators for student disengagement, which can trigger follow-up actions from the school, including reaching out to students and their families to understand their circumstances. This kind of outreach often uncovers underlying equity issues, such as a lack of access, connectivity or stable learning environment, that the school can help address once they are aware of the barrier. This kind of outreach to our most vulnerable learners needs to be prioritized and is most effective when the entire school community can be mobilized to assist through a coordinated effort.

8. Support Special Populations

One of the greatest equity challenges is ensuring students with special needs have the instructional support they need to continue learning during this period. Nearly 7 million students are eligible for individualized education plans, supports, and services. And 1 in 7 of these students live in rural areas with limited Internet access.

Schools will need to employ a variety of strategies to continue serving these students. Kentucky, California, Illinois, and Massachusetts are just a few examples of states that have provided timely answers to questions regarding IEPs and how their districts can best serve their special education populations in their distance learning plans.

The Educating All Learners Alliance (EALA) includes helpful resources from a coalition of organizations focused on supporting the needs of students with disabilities during COVID-19.

International examples can also prove useful in showing how to deliver quality instruction to special learners. Israel used a learning model that kept schools open for more than 52,000 special needs students, even while other students learned remotely. Schools were able to maintain social distancing and adopt other health protocols, while providing the individualized instruction and therapies needed by these students. Schools with large populations of special learners may find it necessary to model this example.

In addition, students experiencing homelessness are exceptionally vulnerable to the disruptions of COVID-19. Prior to the pandemic, public schools reported a record 1.5 million children and youth experiencing homelessness, and in the midst of the current crisis that number is expected to jump. Schools and districts have reported difficulty reaching and identifying students experiencing homelessness during building closures. A survey from the early stages of the COVID-19 pandemic showed that internet access, devices, and technology were among the most pressing needs for students experiencing homelessness in K-12 and postsecondary education. This comes as no surprise due to the poverty and mobility that accompany student homelessness. To meet the needs of children and youth experiencing homelessness, SchoolHouse Connection has developed a deep reserve of resources to assist policymakers, educators, families, and youth as they navigate the challenges of COVID-19, as part of the Education Leads Home Campaign.

The shift to remote learning has also created unique challenges for English Learners (EL). Of the 73 districts examined in the Council of Great City Schools, 32 percent had ELs who comprised more than 20 percent of total district enrollment. ELs are increasingly diverse, representing over 50 language groups in some districts. The Council has produced a guide and framework to assist districts with developing strategies to support this population of students.

9. Ensure Continuity of Service to Care for the Whole Child

The disruption of the traditional education model also interrupted crucial services for students, including free and reduced-price meals, mental health services, and other supports. The shift to remote and hybrid learning models will require creative approaches to ensure children can continue to receive these services. The social-emotional needs will be greater for children of color and children from low-income backgrounds, whose families are more likely to experience direct health impacts and family job losses as a result of COVID-19.

The Council of Great City Schools has published a resource guide to assist schools with addressing the mental health and social-emotional wellness of students during COIVD. As anyone who works with students can attest, attending to the mental health and social-emotional wellbeing of students is not an external consideration— it is a necessary condition for learning. The guide provides a framework for developing a comprehensive plan along with promising practice from several school systems.

The Families First Coronavirus Response Act, which was passed in March, allowed states to provide meal replacement benefits through SNAP. The program, known as the Pandemic Electronic Benefits Transfer (P-EBT), serves children who attend a school that is closed for at least five days and who otherwise would have received free or reduced-price meals. Payments to each family were at least $5.25 per child per day. The program builds upon the existing SNAP program, but also provides benefits to families not currently eligible for SNAP. At least 30 million children have benefited from this approach during school closures.

Oakland is a great example of community support services for families and children. Oakland REACH's broader City-Wide Virtual Hub initiative pairs families with liaisons to help them troubleshoot distance education issues with their children. The liaisons are also trained to help connect parents to housing and employment services.

In addition to initiatives like this, school-based health centers (SBHCs) and school-based health clinics can provide access to a variety of healthcare services for students, including mental health services. Before COVID-19, some schools were bolstering their health services with telemedicine services as well. The use of telemedicine in Rochester, New York resulted in "redressed socioeconomic disparities in acute care access in the Rochester area, thus contributing to a more equitable community." In Massachusetts, a telemedicine mental health program provided by Athol Hospital for high school students was able to continue serving students even after schools closed in March. The shift to online learning will require schools to accelerate their piloting and scaling of telemedicine services to provide continuing care.

10. Leverage the Crisis to Build a Better System

The pandemic has disrupted nearly every facet of education, with schools doing their best to provide continued instruction. Crises often create an opportunity to consider broader systemic changes. Seen in this way, the pandemic can serve as a catalyst for introducing long-needed paradigm shifts in education to create a system that serves the needs of all children, not just a lucky few.

Leaders have challenged the nation to strive not to return to normal but to build something better. The crisis has demanded a surge of investment in digital tools and services to provide life lines to students during this period of disruption. These can serve as a foundation to explore more intentional models of blended learning, flipped classrooms, and competency-based models of learning over the long term. Online technologies can also accelerate efforts to mobilize more caring adults to support students. This can be done through national service and volunteering programs to provide more tutors, mentors and student success coaches can help keep more students in school and on track to graduation, and to post-secondary education and training.

The digital tools and platforms that are being used to facilitate online learning will only grow in importance. The idea of team teaching can take on new urgency, as skilled in-classroom teachers can provide pre-recorded lectures while more technologically-savvy instructors can take on small group live instruction with students. This period of remote learning and remote work also gives schools the chance to bring all kinds of experts and professionals from different fields into the “classroom” to help illustrate concepts and lessons.

Conclusion

Times of crisis have always summoned the greatest of our people. Educational institutions are now at the center of a national crisis that demands that we meet this moment with renewed creativity and energy for the sake of millions of children and youth. COVID-19 has given us a once-in-a-generation opportunity to rethink and reimagine all parts of the learning experience. We have an opportunity to use this moment to address many of the long-standing challenges that have plagued our education system. But taking advantage of this moment requires action and vision – beyond just “getting through” the moment. We must take advantage of this runway that we have been given to provide a more equitable, engaging and effective learning experience for our students and their families and provide equal access to the American Dream.

Author Biographies

Linda G. Roberts was Director of the Office of Educational Technology and Senior Advisor to Secretary of Education, Richard Riley, from 1993 - 2001. Her accomplishments include creation of the E-Rate program, the Technology Innovation Challenge Grants, and development of the first National Ed Tech Plan that served as a blueprint for state and local efforts across the nation. Before joining the Clinton Administration, Roberts directed three landmark studies on the use of technology in education for the U.S. Congress, Office of Technology Assessment (OTA). Her OTA research was informed by Roberts' 18 years of prior experience in the field, as teacher, administrator, university professor and academic dean. After leaving government in 2001, Roberts focused on advancing the effective use of technology, advising companies, foundations, states, and education organizations. In addition, she has served as Board Trustee of Sesame Workshop and Board Director of Wireless Generation, Classroom Connect and Carnegie Learning. Presently she is on the Boards of Fine Tune Learning, VHS Learning, EDC and Digital Promise.

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Katrina Stevens serves as President and CEO of The Tech Interactive. In her role as Deputy Director for the Office of Educational Technology (2015-2017), she oversaw Future Ready, professional development, education innovation clusters, developer outreach, and increasing the use of evidence in decision making. As Director of Learning Science at the Chan Zuckerberg Initiative, Stevens continued to focus on supporting how researchers, educators, technologists, policymakers, and communities work together to improve learning experiences. She began her career as a teacher, administrator and edtech startup cofounder.

Author Biographies

Dr. Timothy Magner served as the Director of the Office of Educational Technology from 2006 to 2009. He is currently the President of the Greater Shreveport Chamber of Commerce in Shreveport, LA. His other work experience includes teaching and technology positions in K12 and higher education and executive leadership positions in national and international non-profit organizations, including the LSU Medical School in Shreveport, LA, the Partnership for 21st Century Skills (P21), the Council of Chief State School Officers, Microsoft, the Schools Interoperability Framework (SIF) and Public Broadcasting Service (PBS) as well as schools in France and Switzerland and school districts in Framingham MA and Fairfax, VA. He holds a BA from William & Mary, his M.Ed. from Harvard University and his Doctorate in Organizational Leadership from Pepperdine University.

Richard Culatta is the CEO of the non-profit organization ISTE|EdSurge which focuses on helping teachers around the world use technology to close equity gaps and accelerate innovation in education. Prior to joining ISTE, Culatta served as the chief innovation officer for the state of Rhode Island where he led initiatives to expand personalized learning and bring computer science to every school. While serving as the director of the U.S. Department of Education's Office of Educational Technology, Culatta led efforts to expand connectivity to schools across the country, develop a National Education Technology Plan, and build engagement between educators and tech developers. Culatta began his career as a classroom teacher and remains an advocate for teaching about digital citizenship.

Joseph South is the chief learning officer at the International Society for Technology in Education (ISTE). He formerly served as the director of the Office of Educational Technology (OET) at the U.S. Department of Education in the final year of the Obama administration, and was previously the deputy director of OET. In his role at the department, he was an adviser to the Secretary of Education and developed national educational technology policy, formed public-private partnerships to assist state and local education leaders in transitioning to digital learning, helped school districts expand the use of openly licensed educational resources (OERs), and collaborated with stakeholders to nurture a robust ecosystem of edtech entrepreneurs and innovators.

Karen Cator served as the President and CEO of Digital Promise through its expansion phase from 2013 - 2020. Previously, she was Director of the Office of Educational Technology at the U.S. Department of Education, where she led the development of the 2010 National Education Technology Plan and focused the Office's efforts on teacher and leader policies and support. Prior to joining the department, Cator directed Apple's leadership and advocacy efforts in education. In this role, she focused on the intersection of education policy and research, emerging technologies, and the reality faced by teachers, students and administrators. She began her education career in Alaska as a teacher and administrator and also served as Special Assistant for Telecommunications for the Governor of Alaska. Cator holds a master's in school administration from the University of Oregon and received the 2014 College of Education Distinguished Alumni award. The American Association of Publishers awarded Cator with the 2014 Visionary Award. She received her bachelor's in early childhood education from Springfield College and received the 2015 Distinguished Alumna award. She is an Aspen Pahara Fellow and the past chair for the Partnership for 21st Century Skills.