Educational Technology
COVID-19 CLOSURE WORKING PAPERS

> When school attendance is not possible or is limited, districts should implement a temporary blended model that distributes educational time between in-person learning and distance learning or fully remote instruction. Recognizing the dangers of excessive time on devices, especially for young students, districts should develop age-appropriate student learning schedules with teacher input. Also consequential is the need for districts to determine solutions for equal access to learning opportunities for students who are unable to connect with the school digitally.

What to Consider and Best Practices

Screen Time

The American Psychological Association released revised guidance on screen time for children based on the increased device use that preceded the pandemic:

- Age 2 and under: Avoid media use (except video chatting).
- Preschoolers: No more than one hour of high-quality programming per day.
- Grade-schoolers/teens: Don't let media displace other important activities such as quality sleep, regular exercise, family meals and "unplugged" downtime.
- All ages: Be a media mentor. Co-view media with your kids.

A synthesis of multiple reports on screen-time exposure for students has been offered by Everyschool.org. It recommends varying amounts of screen time depending on the age of the student and the type of technology with which they are interacting. Recommendations include:

- No screen time for pre-K students
- Up to 20 minutes per day for K-2 students
- Up to 30 minutes per day for students in grades 3-4
- Up to 40 minutes per day for students in grades 5-6
- Up to 50 minutes per day for students in grades 7-8
- Up to 60 minutes per day for students in grades 9-10
- Up to 70 minutes per day for students in grades 11-12

Coupled with these time recommendations are types of screen time that are worthwhile (or not so worthwhile) for students: transformative, supportive, restrictive and disruptive. Transformative screen time is highly recommended (including coding, critical-thinking projects or tech that assists students with special needs). Supportive screen time, such as watching TED Talks or reading online articles, should be used in moderation. Restrictive screen time involves using software or applications for skills that have already been mastered by the student and are to be used sparingly. Finally, disruptive technology (unrestricted cellphone use, social media or "tech for tech's sake" should almost never be used by students.

There remains a continued importance on focusing on teacher training to ensure that tech investments are used well. Some schools, in their initial attempts to use technology, focused more on choosing devices and apps than on preparing teachers. This is a model that simply doesn't lead to good learning outcomes.

Adequate and Accessible Devices

Among the most significant concerns are gaps between the country's poorest and wealthiest schools regarding access to basic technology and live remote instruction, as well as the percentages of students who teachers report are not logging in or making contact.

Even before the COVID-19 pandemic, a "homework gap" was experienced by as many as 12 million K-12 students who couldn't finish their schoolwork from home because they lacked internet access.

According to a 2019 analysis by the Associated Press, 18 percent of students lack broadband internet access. Low-income families and families of color are especially likely to be without these resources, according to the AP. This data was buttressed by a survey done by the Department of Education in 2017 on children's access to and use of the internet. The survey found the number of households without internet has been declining overall but was still at 14 percent for metropolitan areas and 18 percent in nonmetropolitan areas.

Teachers have been trying to make inroads in the face of the pandemic.

> "Districts with more resources are likely going to be able to avail themselves of higher-quality instruction, and higher-income families are going to be much better positioned to support [remote] learning than less-resourced families who don't have the privilege of staying at home."

But teachers in the lowest-income schools were more than twice as likely as teachers in higher-income schools to use text messages, phone calls, social media and printed communications to reach students, and they were also far more likely to send material out via snail mail.

There needs to be a monumental effort to fill the voids made by the stark inequalities presented by the digital divide in this country. Districts have sought to fill the device gap, proliferating computers and funding projects that will be used to increase internet access and purchase digital devices in some places, but we are far from the 1:1 ratio needed to ensure equity for all children nationwide.

Blended Learning

> Blendedlearning.org defines this type of education as blended: any formal education program in which a student learns at least in part through online learning, with some element of student control over time, place, path and/or pace.

There are numerous methods employed today to reach the ends of delivering instruction—in part online. According to the Christensen Institute, there are four models that are most commonly implemented in schools today: from the Rotation Model, to A La Carte. No matter the model chosen, one must be mindful about the design of online learning and the security of platforms so that unauthorized individuals and inappropriate content aren't able to reach children (see the AFT's Student Privacy Resources for Distance Learning). And, whether you are creating digital resources and activities or planning a large purchase of student devices, the technology should support the learning, not the other way around. And keep in mind that student engagement is an even greater challenge in the virtual classroom than in the physical classroom.

Recommendations

One of the most important things teachers can do now is draw on what others are doing: Form a community online, share the burden and make things a bit easier. The AFT's Share My Lesson offers myriad resources on the coronavirus pandemic. From supporting students with disabilities during the pandemic to providing distance learning tips for parents and educators, Share My Lesson provides educators a place to talk to and collaborate with other educators facing the same unknowns as they are.

Educators will embrace blended learning when they are included in the decision-making process, understand the benefits of new initiatives and have the skills—or the support to develop the skills—to accomplish what is being asked of them. Labor-management committees should be created to ensure that educators are included and have a voice in the decision-making process regarding plans for their students that are based on best industry practices related to screen time and device use. They should also have the platform to inform others about what worked for them while they were distance learning.

To ensure that all students have access to the internet and the devices needed for distance learning, each school district needs to carefully map internet and device access per students and households. Although it was not possible to do this on short notice prior to this spring's school closures, it is essential that this process is undertaken before the school year begins. It is also important to note that there may be more than one student per household, so the number of devices needed may be larger than originally anticipated.

Using the time available between now and the start of the next school year, adequate professional development should be made available for teachers, paraprofessionals and school-related personnel to provide exposure to the different technological devices and learning platforms they may be using with students in the upcoming school year.

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