# Overcoming Digital Fatigue in Students

## WHAT ARE THE EFFECTS—AND HOW CAN EDUCATORS OVERCOME THEM?

P re-pandemic, an estimated <u>two-thirds of all social interactions took place face-to-face</u>—and that number was even higher for school-age children.

That all changed during spring 2020, when the schedules and routines of the world changed on a dime, including the structure of in-person learning. According to the United Nations Educational, Scientific and Cultural Organization, more than 1.5 billion students worldwide experienced pandemic-related schooling interruptions. The global health crisis has resulted in nearly half the world's students being affected with partial or full school closures.

Effective technology use in classrooms and remote learning curricula existed pre-pandemic, of course. But the forced, unplanned shift to all-digital learning components led to an unexpected downside that lingers today: Digital fatigue.

As schools continue to digest digital lessons gleaned during the pandemic, it is important to look back on tried-and-true learning methods, including use of printed books and physical materials.

It is important to ask: What can educators do moving forward to ensure students are comprehending the most from digital and paper learning?

## THE STATE OF DIGITAL FATIGUE

A March EdWeek article cites research that found 66 percent of teachers, principals ,and district leaders say that, two years into the pandemic, they are fatigued by technology use. In addition, 72 percent

**66%** & **72%**

**OF TEACHERS,**
principals, and district leaders

**OF STUDENTS**
(according to survey respondents)
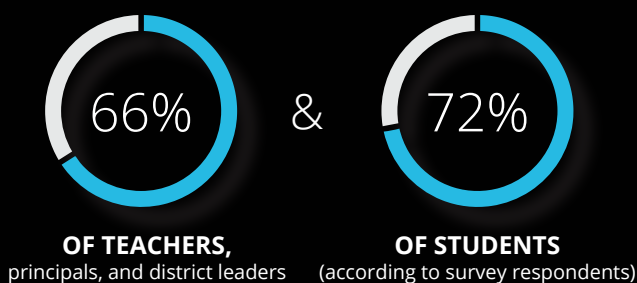
say that, two years into the pandemic, they are fatigued by technology use.

of those respondents said students in their district or school also are fatigued.

The study also found that many students are struggling to use technology without teacher assistance at home and are returning to school the next day with incomplete assignments. As a result, rather than focusing on instruction, teachers are forced to spend school time offering tech support.

According to a national survey conducted by Voyager Sopris Learning® in November 2021, 94 percent of respondents said they worried their students and colleagues are suffering from digital fatigue.*
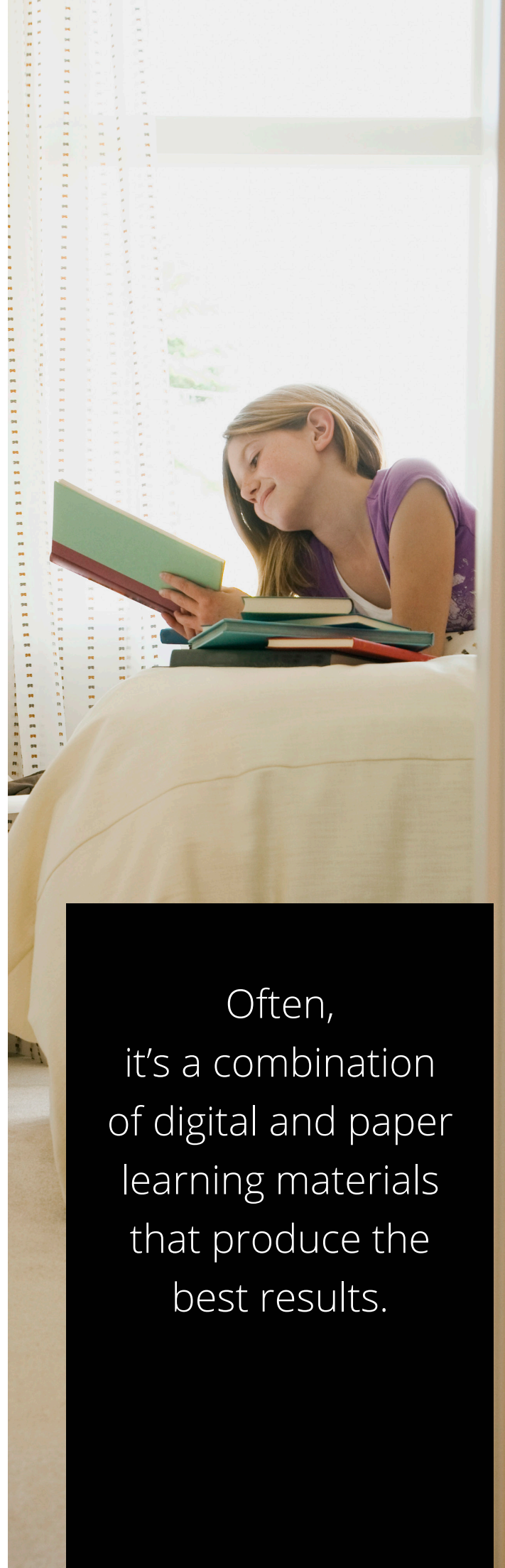
It's clear that while digital tools offer important benefits such as personalized learning and the option to learn remotely, they are not always the best choice. Often, it's a combination of digital and paper learning materials that produce the best results.

## FACTORS INFLUENCING DIGITAL FATIGUE

### 1 LACK OF TRAINING, ENGAGEMENT

The emergency shift to digital learning meant educators and students had to get familiar with unplanned remote learning overnight. [A Forbes article from March 2020](#) cites study results of elementary-school teachers that more than half of the teachers were "not prepared to facilitate remote learning." Of those respondents, nearly 43 percent said they had the burden of deciding which tools to use for that remote learning.

And even when teachers were able to piece together an emergency remote instructional plan, some students were less than enthusiastic about the sudden, forced

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*The survey collected anonymous responses from 320 administrators, teachers, and specialists from across the country.*

changes—coupled with the stress directly associated with the pandemic. In its 2020 Voices from the Virtual Classroom report, Educators for Excellence reported that two-thirds of teachers said their students were [less engaged during remote instruction](#) than before the pandemic, and that the engagement of students declined further during the course of the first semester of the pandemic.

The stress of unplanned, on-the-spot virtual instruction certainly contributed to a feeling of digital fatigue. The emergency remote learning shift is a reminder that though virtual options exist, they are not sustainable without the right planning— a lesson that districts are still revisiting to determine future instructional planning.

## 2 THE SHIFT TO VIDEOCONFERENCING

The term ["Zoom fatigue"](#) emerged during the pandemic to describe the mental exhaustion caused by an influx of "camera-on" video requirements for students, teachers, and parents. While videoconferencing for school use already existed, it skyrocketed during the early days of the pandemic, with Zoom seeing 10 million daily meeting participants in December 2019 and [300 million by April 2020](#). Zoom was the immediate leader in the videoconferencing cascade, but competitors such as Microsoft Teams ([use jumped 70 percent](#) from March 2020 to April 2020) and Google Meets ([hit 100 million daily meeting participants in April 2020](#)) also saw an influx of new users, including teachers and students.

> " "COVID fatigue" is a reaction to the prolonged demands on physical, emotional, and cognitive health of collective society. "
>
> — **DR. MARGARET "MEG" CARY,**
> *Oregon Health Authority Senior Health Advisor*

So, how exactly did the rise in videoconferencing lead to fatigue?

The science of it goes something like this: The micro delays in audio and the extended focus on lower-resolution, poorly illuminated video streams of images lead to a feeling of fatigue, even if little to no physical movement is required. [Critics of the influx of videoconferencing](#) say the demands of being "on camera" and needing to focus on others can be disconcerting, overstimulating, and even anxiety-inducing, particularly if students are uncomfortable with their homes and families on video.

While videoconferencing serves as a helpful connection tool for group and one-on-one learning, the extreme use of it, brought on

so quickly, has led to further digital fatigue in students, parents, and teachers.

## 3 GENERAL PANDEMIC FATIGUE

The long reach of pandemic stress will continue to permeate the mental health of students and educators for years. In a January interview, Oregon Health Authority Senior Health Advisor Dr. Margaret "Meg" Cary [spoke about "pandemic fatigue"](#) and why it continues to infiltrate the greater community. Cary said "COVID fatigue" is a reaction to the prolonged demands on physical, emotional, and cognitive health of collective society. This overall fatigue will continue to play a role in students' ability to learn effectively in the coming years.

# Resources to Counter Digital Fatigue in Literacy Learning

School districts should carefully consider whether the literacy-learning solutions they choose are the right fit for their students. The ideal program is one that is grounded in well-researched literacy principles and offers students a personalized journey with relatable, engaging text.

*Voyager Passport*® offers a comprehensive supplemental reading intervention program for kindergarten through fifth-grade students that helps struggling readers with explicit instruction, corrective feedback, and more time on tasks to master critical reading skills. The research and evidence-based program has been used by more than 4 million students.

*LANGUAGE! Live* is a literacy intervention program for struggling students in fifth to 12th grades that reinforces literacy foundations while using authentic and inclusive text to accelerate learners to grade level. It offers a blended model with online and teacher-led instruction, with grade-level packages carefully scaffolded to address vocabulary, grammar, reading comprehension, and writing.

One key advantage of these programs is how they personalize learning: They offer multiple entry points for students and privatize progress. The goal is to make learning fun while allowing students to work comfortably at their own pace. ■

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## BALANCING DIGITAL LEARNING WITH PAPER-BASED OPTIONS

The immediate future of instruction will need nuanced approaches and several options for student engagement. It is a mistake to assume digital can (or should) replace all paper-based learning. When students are learning to read, the ability to hold a book in their hands or see text on a page can help them grasp a "sense of the whole," says Dr. Louisa Moats, author of *LANGUAGE! Live*, an adolescent reading intervention program.

"So much value comes from holding a book or text and undertaking a journey through it, page by page," Moats said. "We tend to be more reflective and remember more from interacting with printed text."

An [EdWeek](EdWeek) report from March 2021 found that, of the districts that continued using print during remote learning amid the pandemic, 28 percent said they did so because print resources better met the needs of their learners; 18 percent did so out of concern that parents would struggle with digital content as they helped students with online learning; and 17 percent because they said print was more effective at delivering content.

The effectiveness of print materials is well documented, too. According to [EverySchool](EverySchool), students comprehend and retain more information, engage in deeper and more fluid reading, and are more likely to enjoy reading when they read a printed text versus an electronic one. They even test higher and focus better.

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> *Author of LANGUAGE! Live*

Some research also suggests that keyboard typing may not be as good for retention as writing notes by hand. In 2020, [researchers published findings in Frontiers in Psychology](researchers published findings in Frontiers in Psychology) showing that a group of 12 year olds and young adults all benefited more from writing out notes longhand, as opposed to typing them, particularly when it came to retention of information. The researchers theorized taking notes longhand activates and engages more parts of the brain than typing alone.

Though paper-learning resources are sometimes completed independently, or at home, their use in classroom settings can lead to discussion, feedback, and real-time assistance with completion. This includes reading paper books and discussing the passages as a group or one-on-one with a teacher.

Digital technology can go awry when teachers send students off to use it on their

own, rather than continuously monitoring progress or integrating the screen use with in-classroom instruction, according to Carl Hooker, author of the book series "Mobile Learning Mindset."

Just putting a child in front of a screen isn't enough to facilitate learning, Hooker told EDVIEW360. There has to be a live component that reinforces concepts.

The interaction and personalized feedback and assistance from a live teacher has proven time and again to be a vital component to literacy learning.

"Digital reading tends to be solitary, when the greatest impact of the reading experience should come from discussions about the text," Moats said.

### BLENDED LEARNING TO BATTLE DIGITAL FATIGUE

Digital access brings with it a host of distractions—and comprehension is important when it comes to reading for learning's sake. Researcher Naomi Baron found that 67 percent of university students were able to multitask while reading digitally, compared with 41 percent of print readers. The distraction of screen components can make it more difficult for readers to focus on the task at hand. There's also evidence that digital readers scan for keywords, instead of slowing to comprehend the entirety of a text. Blended learning can emphasize the power in print reading and digital supplements.

Blended-learning tools should be age appropriate. While older students are more familiar with technology and better able to navigate it on their own, they are also more likely to benefit from reading print materials.

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# The Structured Literacy Approach

I n literacy education, instructors should consider the approach the tools take and how it fits with student needs. Dr. Louisa Moats, author of *LANGUAGE! Live*, an adolescent reading intervention program, recommends a Structured Literacy approach that focuses on teaching many aspects of literacy—including phonemic awareness, phonics, fluency, vocabulary, comprehension, and embedded language and writing.

Structured Literacy focuses on explicit, systematic instruction that dismisses the idea a child will just naturally be able to identify or discover patterns in words to efficiently read. Recognized by the International Dyslexia Association®, Structured Literacy is a proven and comprehensive approach to support student literacy success. The concept recognizes that while some students may need more time to master a skill, all students can learn to read effectively. When students learn through a Structured Literacy approach, it leads to greater comprehension of texts and strong literacy "decoding" skills.

"Programs that follow a Structured Literacy approach help students develop knowledge of language structure, which in turn supports both reading comprehension and writing," Moats said. ■

"Reading print for older learners is important because they are likely to comprehend and remember more of what they read," Moats said.

A well-balanced blended learning program will allow students to leverage the benefit of personalized digital learning with the advantages of tactile reading practice.

"Using a blended approach allows teachers to provide efficient practice in some skill areas and accommodate individual needs, while involving a whole group in reflective reading of worthwhile, challenging text," Moats added.

Such an approach puts students' needs first and gives them the best opportunity to excel. ◼

## ABOUT Voyager Sopris Learning

Voyager Sopris Learning is a specialist in reading, writing, and math intervention. Through a holistic suite of teacher-trusted interventions and formative assessments created by the most-respected minds and renowned curriculum authors in their fields, we help all students master the foundational skills for reading, writing, and math success.

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