

Executive Summary

The use of laptops and other educational technologies by educators and students has exploded into mainstream adoption with 74% of U.S. schools in 2018 reporting at least 1 device per student.¹ The latest round of purchasing by schools will see that number grow even larger for the 2021-2022 school year. With responsive scheduling in schools coping with COVID-related issues for staff, students, and families, device availability and reliability are non-negotiables. To meet the needs of all stakeholders, states and districts are employing various approaches for teaching and learning that are both equitable and safe. Whether districts opt for face-to-face, virtual, or a hybrid (combination of face-to-face and virtual) approach, the goal—to use notebooks and other tools to better engage and connect students and improve learning outcomes—remains the same. Zoom* reported in April 2020 that over 90,000 schools across 20 countries were using their service to help students continue their education remotely.²

Complex Demands of Multitasking

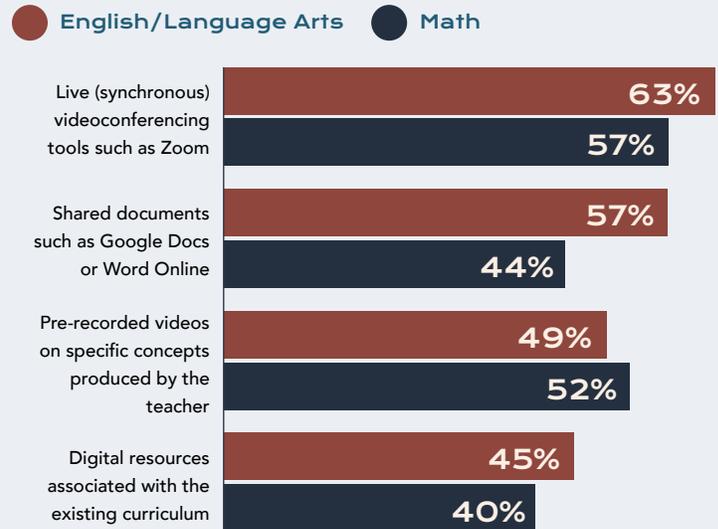
Just like in a classroom setting, a typical day of virtual learning requires students to use their devices to complete many simultaneous complex tasks. They often join a videoconference while having multiple web browser tabs open and applications running on their devices. Students rely heavily on video and livestreaming websites such as YouTube* to engage with materials, both for their school-based work and for personal learning. Students also regularly engage with a learning management system, such as Google Classroom* or Canvas*, and work collaboratively in Google Docs* or Microsoft OneDrive* while connected to a videoconference on Zoom.



Read the Full Report

Download the full report online at the **K-12 Blueprint** website.

Popularity of virtual learning tools



Source: EdWeek Research Center survey, 2020³

Notebooks with Intel® Core™ and Intel® Celeron® processors repeatedly outperformed the others with faster processing speeds, more ability to multitask across applications without disruptions, and better video quality both when engaging in videoconferencing and screen sharing livestreaming content.

Less Waiting, Fewer Disruptions, and More Time Learning

Devices with processors powered by Intel® technology create a more seamless teaching and learning experience by reducing disruptions and delays, making it easier to connect with others, and allowing students and educators to spend less time waiting for the processor to keep up with learning that requires multitasking.

¹ Source: CoSN's 2018-2019 Annual Infrastructure Report

² Source: Zoom - A Message to Our Users

³ Source: EdWeek Market Brief: Zoom and Google Docs Win Out for Remote Teaching, Survey of Educators Finds

Key Takeaways

1



While multitasking on video calls to do livestreaming in-game play in Minecraft: Education Edition, **Intel® Core™-based Windows* devices** perform **an average of 6x faster** than devices powered by AMD* processors.

2



When joining a Zoom video call, **Intel®-based Windows notebooks and Chromebooks*** outperform competitors, with devices powered by **Intel® Core™ i3** technology performing **up to 71.8% faster**.

3



While multitasking on video calls to livestream and use 3D modeling and simulation applications, **Intel® Core™ and Intel® Celeron®-based Chromebooks** perform **an average of 2.5 seconds faster** than those powered by AMD and MediaTek* processors.

4



Intel® Core™ and Intel® Celeron®-based notebooks perform better than competitors when using Zoom's screen share feature to share and receive streaming video, experiencing little to no lag, delay, or disruption in video quality.

5



When leaving a breakout room to rejoin the main room in a Zoom video call, **Intel® Core™ i3-based Windows devices** outperform AMD-based devices with speeds **up to 89% faster**. Likewise, **Intel® Core™ i3-based Chromebooks** perform **up to 60% faster** than those powered by AMD technology.

6



When multitasking to engage in complex learning tasks, competitors routinely experience significant errors, delays, and dropped calls.

7



Intel®-based Windows notebooks and Chromebooks provide a more reliable experience with less disruptions, allowing parents and caregivers to spend more time supporting their students' learning and less time providing technical support.

8



Intel®-based Windows notebooks and Chromebooks are able to enter a Zoom breakout room faster and with fewer delays compared to competitors.