



COVID-19 AND THE ACCELERATION OF HYBRID LEARNING

New market research shows us that K-12 schools will look to hybrid learning to improve student outcomes in the 2020-21 academic year.

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The initial response to the COVID-19 pandemic for 55.1 million K-12 students¹ across the United States included some form of synchronous (real-time) and/or asynchronous (self-paced) instruction. While educators, administrators, and parents worked hard to keep student outcomes in line with what would be observed under normal conditions, the COVID-19 pandemic was swift and unprecedented—likely causing academic setbacks. In what is being called the *COVID-19 slide*, according to the NWEA (an education research not-for-profit), K-12 students will return to school next fall with only 70% of reading gains and 50% of math gains compared to a typical school year.²

To better understand how K-12 education professionals responded to the COVID-19 pandemic and what actions they are taking heading into the 2020-21 academic year, we surveyed over 200 principals and teachers across the US and Canada. In this article, we examine their outlook on anticipated building reopening, effectiveness of distance learning across subjects, and major changes heading into the next academic year. Our survey results identified two imperatives:

1. K-12 schools should look to implement hybrid learning capabilities now, and
2. Subjects with learning gaps—where asynchronous instruction has not been effective—will demand hybrid learning capabilities in the new reality.

Building reopening and hybrid learning capabilities

For the 2020-21 academic year, schools are currently planning when buildings will reopen and how instruction will be delivered (online, in-person, or a hybrid learning format—which is a combination of both online and in-person instruction). The timeline for when to reopen buildings is still unclear—and will likely develop alongside state-wide reopening plans—but, as decision makers of individual schools, principal attitudes may provide some insight into that timeline. In a survey conducted with 100 principals across the United States, 92% of principals anticipate buildings will reopen in the fall (Exhibit 1).

Coupled with their attitudes, we also learned about actions they are taking. We asked principals about their purchasing behavior for the next school year. The optimism school leaders had about school reopening is consistent with their actions, and they are adjusting their purchasing decisions for the new school year to include tools that lay the groundwork for hybrid learning (Exhibit 1).

Hybrid learning (also referred to as blended learning) means a combination of in-person classroom instruction with online activities for students. This approach reduces the amount of seat time in a traditional face-to-face instruction and moves more of the course delivery online. During in-person instruction, students can be engaged in authentic, collaborative learning experiences.³

¹Map: Coronavirus and school closures. *Education Week*, March 6, 2020. <https://www.edweek.org/ew/section/multimedia/map-coronavirus-and-schoolclosures.html>.

²The COVID-19 Slide: What summer learning loss can tell us about the potential impact of school closures on student academic achievement. *NWEA*, April 2020.

³What Is Hybrid Learning? Penn State University. <https://sites.psu.edu/hybridlearning/what-is-hybrid/>

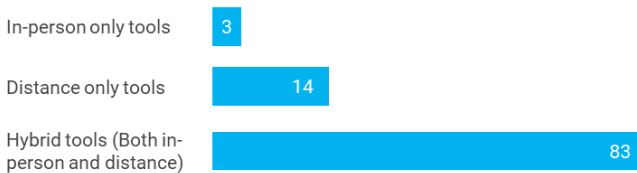
The 2020-21 academic year will likely see hybrid learning at K-12 schools

Exhibit 1

Question: When do you anticipate reopening your school at this time?, # of principals



Question: When making purchasing decisions for K-12 products what is your priority right now?, # of principals



Source: Unruly Studios K-12 Principal Survey, n=100; surveys conducted May 15–20, 2020

As hybrid learning has rapidly become a new focus in education, it is hard to find examples of effective hybrid learning tools. One example is [Unruly Splats](#). Unruly Splats combines computer science with active recess-style play for K-8 students. Splats are big, programmable floor buttons that light up, make noise, and sense when they're stomped on. The Splats come with a number of pre-loaded game options, while also allowing students the opportunity to code their own games like whack-a-mole, relay races, dance routines, and they can even create their own songs. Splats are a flexible tool that is designed to support hybrid learning. Games can be coded by students at home using a virtual web application and Virtual Splats. Then, games can be brought to the classroom for students to play in-person. The games are also built for social-distancing guidelines and are easily modified to support

rules around students staying 6 feet apart or smaller class sizes. Using Splats for both it's asynchronous and synchronous Computer Science instruction gives teachers the flexibility to maximize student learning in both settings.

In short, the inability to understand and project exactly how the COVID-19 pandemic will progress is forcing K-12 administrators to combine distance learning components with in-person components (hybrid learning) to help maximize academic progress of their students.

Effectiveness of distance learning

As states began closing K-12 school buildings, distance learning was the only form of instruction from mid-march onwards.⁴ However, even the most digitally-integrated K-12 schools can expect learning loss.

⁴Map: Coronavirus and school closures. *Education Week*, March 6, 2020. <https://www.edweek.org/ew/section/multimedia/map-coronavirus-and-schoolclosures.html>.

A 2015 Stanford research study showed that virtual charter school students (those who take all of their classes via computer from home) make dramatically less academic progress than their counterparts in brick-and-mortar schools. The gains that online charter students saw in math were so limited, it was "literally as though the student did not go to school for the entire year," a researcher said. The researchers also summarized, the findings "leave little doubt attending an online charter school leads to lessened academic growth for the average student."⁵

Teachers know this; when surveyed about concerns they have for their students, responses consistently included similar themes: "engagement," "knowledge retention," "lack of focus," alongside the fact students are "losing [the] social aspect of school."⁶

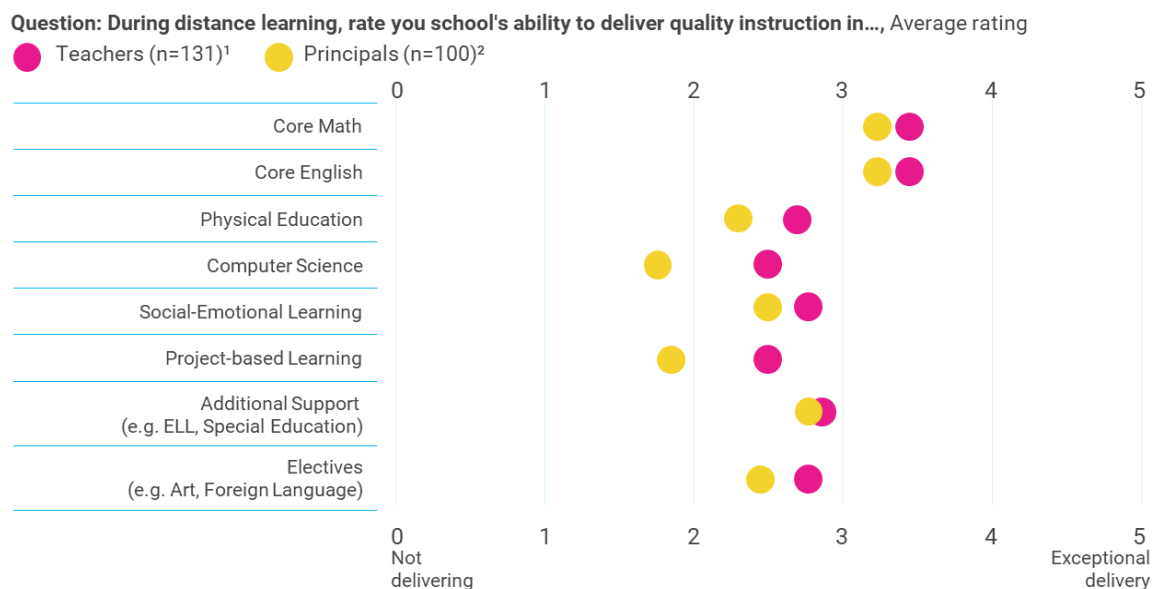
To that end, to understand subjects impacted

the most due to distance learning, we surveyed both principals and teachers about their school's ability to deliver quality instruction in a wide variety of subjects on a scale of 0 to 5; 0 meaning they are not delivering, and 5 meaning they are delivering exceptionally. Exhibit 2, below, shows these results. Unsurprisingly, no subject area received greater a score of 4 or higher, because of the rapid and unpolished nature of these virtual programs.

Additionally, principals and teachers both agreed on the subject-matter they were the most confident in delivering and least confident in during distance learning. They were most confident delivering Core Math and Core English, with Core Math receiving an average rating 3.4 from teachers and 3.2 from principals and Core English receiving the same ratings. The topics they were least confident in their delivery during distance learning were Computer Science and Project-Based Learning.

Non-core subjects have been impacted the most during distance learning

Exhibit 2



¹Source: Unruly Studios K-12 Principal Survey, n=100; surveys conducted May 15–20, 2020

²Source: Unruly Studios K-12 Teacher Survey, n=131; surveys conducted May 28–June 2, 2020

⁵2015 Online Charter School Study. *Center for Research on Education Outcomes (CREDO)*, credo.stanford.edu

⁶Question: What are you most concerned about for your students going through quarantine and distance learning? Unruly K-12 Teacher Survey

“Just about everything [will be different next year]. Learning in itself is social.”

Project-Based Learning can be defined as a teaching method in which students learn by actively engaging in real-world and personally meaningful projects.⁷ Computer Science received an average score of 1.8 (from principals) and 2.5 (from teachers), while Project-Based Learning received an average score of 1.9 (from principals) and 2.5 (from teachers).

This was an expected outcome. State-level proficiency standards heavily weight Core English and Math, presumably also overweighting these subjects during the planning that went into the distance learning transition. A noticeable gap between these core subjects can be seen in Exhibit 2, as no other subject/topic area surveyed received an average rating higher than 3.

These non-core subjects with low confidence ratings are likely to see greater learning gaps unless K-12 schools respond to the limitations that have emerged with distance learning.

Expected changes in the 2020-21 academic year

When hypothesizing about what to expect in the next academic year, one educator from Trenton, New Jersey said, “Just about everything [will be different next year]. Learning in itself is social.”

Distance learning will inevitably continue into next year. However, distance learning’s prolonged existence in K-12 education cannot be an excuse for schools and administrators to resist change.

Ensuring that learning environments have transformed to include collaboration for more engaged students is crucial. When we asked principals about the importance of student collaboration during distance learning, 73% consider collaboration important.⁸ When we asked teachers a similar question, 90% agreed that collaboration should be important during distance learning.⁹

Collaboration is not the only thing on teachers’ minds either. When comparing this past academic year with next year, one teacher from Buffalo, New York said, “I feel that [they are receiving] the same type of teaching from all their teachers...I need to find a way to make them do something ‘different.’”

Another teacher from Ontario, Canada agreed and she will modify her teaching plan heading into next year, but she also said, “I am concerned about their emotional well being first.”

⁷What is PBL? *Buck Institute for Education*. <https://www.pblworks.org/what-is-pbl>

⁸ Question: Is it important to have students collaborating with other students during distance learning? Unruly K-12 Principal Survey

⁹ Question: How important is it to you to provide collaborative learning experiences for your students during distance learning? Answers were recorded on a scale of 0-10; 90% reflects responses with a ranking of 6 or higher. Unruly K-12 Teacher Survey

When we asked teachers about what they will be looking for from external vendors, 50% said they are prioritizing Social-Emotional Learning (SEL) resources. Social-Emotional Learning is the process through which children and adults understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions.¹⁰ Many Social-Emotional Learning concepts can be practiced for students through play and group collaboration, whether remote or in-person. STEM was the highest need for teachers from external vendors with 75% voting on

that category, and Project-Based Learning second, with 61% respondents. SEL was the third most requested resource (50%).¹¹

Teachers are looking to external resources to fill gaps in instruction for subject-matter they are not currently practiced in. Schools must think creatively to get these resources into their hands.

As hybrid learning becomes more of a reality for K-12 schools, teachers and principals will have to work fast. Learning gaps are expediting the need for investment in hybrid learning tools. High-quality hybrid learning is possible, but it must be engaging and well-rounded.

¹⁰ What is SEL? *Collaborative for Academic, Social, and Emotional Learning (CASEL)*. <https://casel.org/what-is-sel/>

¹¹ Question: Which of the following categories will you be looking to external resources to help improve distance learning in preparation for the 2020-21 school year? Unruly K-12 Teacher Survey



ABOUT US

Unruly Splats combines computer science with active recess-style play for K-8 students.

We would love to partner with you in building your school's hybrid learning model to address your needs around STEM, Project-Based Learning, and Social-Emotional Learning for this fall. Educators across the country have embraced our virtual content, including this K-8 educator:

"I love using Splats because it provides digital Splats for quick testing and easier remote learning!" - a #UnrulyEducator

LEARN MORE

If you have any questions, email us at info@unruly-studios.com

