New Learning Models for a Hybrid World

After the challenges educators and students faced in 2020, the temptation to return to what classrooms looked like in 2019 is a powerful one. Virtually all respondents to a Spring 2021 Center for Digital Education (CDE) survey of K-12 leaders said that in-person instruction is the expectation for the fall. Even so, many schools and districts are planning to continue hybrid models of teaching and learning going forward. But they also plan to develop new ones that better meet student needs. To do so effectively will require evolving beyond the modalities that emerged during the pandemic.

"Now that the dust has settled, it's up to educators to figure out what works best for students," says Suzanne Phillips, education business development manager in Cisco's global industry solutions group.

New models for learning

Despite the return to physical school buildings, around half of all CDE survey respondents said it's either likely or somewhat likely that their schools will offer students some form of hybrid learning as an option in Fall 2021—and nearly three-quarters (71 percent) believe new models will become part of their offerings in the future (see chart, below).

A variety of terminology is being used to describe emerging hybrid models, according to Mary Schlegelmilch, MSEd, Cisco business development manager for state, local, and education. For example, the HyFlex models embraced by higher education allow students to choose whether to attend class in-person or online on a daily basis — or even to review classroom video asynchronously. While that's an approach more suited for the competing demands of adult learners, K-12 schools could ultimately adapt the model to give students the opportunity to take online classes and come to campus for specific hands-on activities, small-group discussions or extracurriculars.

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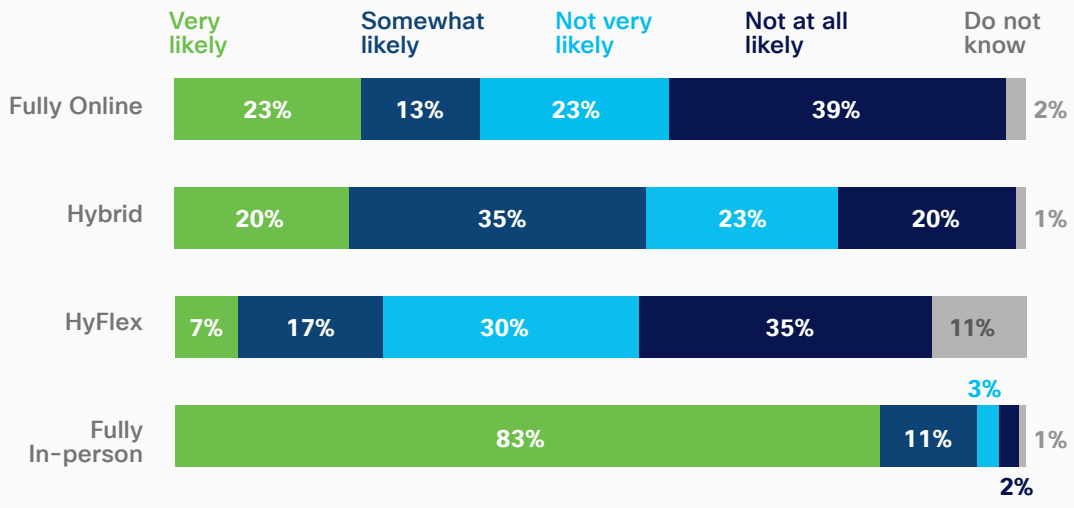
Even if more traditional hybrid models bear out, most classrooms will ultimately have some remote students at least part of the time. Given the challenges of engaging students in remote and hybrid models during the pandemic, it's clear that new learning

What is the likelihood that your school will offer fully online, hybrid or HyFlex[1] learning options to students in the future?



In a HyFlex model, students decide on a day-to-day basis whether they will attend class in person or online, or review class lectures asynchronously.

approaches will be needed to ensure these models work for all students – whether they are at home or in the classroom.

"That involves creating an environment that makes it as easy for the teacher to teach remotely as in person," says Phillips.

Just as importantly, it involves ensuring students remain engaged and active learners, particularly given the growing reliance on 1:1 devices in both remote and in-person settings. "Students need something where they're directly engaged because they're joining class on the most distracting devices in the world," she says. Keeping those devices secure while connected to school networks is also critical, as is preventing their access to inappropriate content online.

Two alternative approaches to traditional education – project-based learning and the flipped classroom – have been in use for decades. But together they could prove to be an important piece of engaging students in hybrid and other emerging learning models.

Project-based models allow students to take charge of their learning by working independently or in groups to solve problems or finish objectives. While long seen as a way to boost student engagement and ownership in learning, the model also provides a greater impetus for students to participate and collaborate with peers in remote or hybrid models.

In similar fashion, the flipped classroom – where teachers provide lectures online and students do work in class – was one of the first models proposed for online instruction. But the concept of reviewing whole-group lectures online before participating in the classroom becomes more powerful when coupled with project-based activities. "The teacher can do a whole-group lecture through an asynchronous environment – such as what are the parts of the worm we're going to be dissecting tomorrow? Then students can pre-fill the lab sheets and get a jump start so when they come into that active learning environment they're more on task," Schlegelmilch says.

And then there are the emerging technologies that provide opportunities for students to learn in new ways. Augmented and virtual reality, for example, could create new kinds of virtual lab simulations that allow schools to provide hands-on learning in a much broader range of subjects – both science experiments and career and technical lab activities like truck repair or avionics that few schools could afford to offer in real life. Combined with gamification – adapting videogame scoring and levels to learning objectives – "we could move kids through curriculum like a game with augmented reality labs," Schlegelmilch says. "If we move students into this type of environment, they will learn differently."

Strategies for success

Evolving these new models will require building on strategies that many schools began implementing during the pandemic, including:

Providing better training. Helping teachers use videoconferencing and learning platforms was only

the first step. Schools and districts must now focus on preparing teachers to leverage these tools in ways that support mixed groups of students and in-person and online activities. "It is a gift as well an art when a teacher can manage both a virtual and face-to-face environment," Schlegelmilch says. One key will be providing avenues for teachers to collaborate and jointly develop resources and lesson plans.

Increasing engagement. While video was often used to monitor student attendance during the pandemic, teachers can also leverage it to personalize instruction. "When we think about how we engage learners where they are, one of the ways we do that is to see them — we take in so much information with our eyes," says Renee Patton, Cisco global director of healthcare and education industries. "When I can see you, I can see what directions your eyes move, and based on that I can tell what kind of learner you are."

But video isn't the only tool schools can use to ensure student engagement. Breakout rooms for small-group discussions and online quizzes or checks for understanding help keep students' interest, and online chat or Q&As can help students who may be too shy to participate in either a virtual or in-person discussion.

Ensuring accessibility. Along with students with disabilities, visual learners and others may benefit from closed captioning of online video — whether in the classroom or remote. Automated live translation services in dozens of languages also provide "capabilities that just weren't possible before," Phillips says.

Adopting new technology. Only four percent of CDE survey respondents report not needing any new technology infrastructure to support new models of learning going forward. Schools will need to evolve their infrastructure to support the 1:1 devices students will use on campus, ensure systems are secure, and modernize cameras and video screens to enable more inclusive discussions and better track instructor movements when teaching. And learning systems will need to be rebuilt to serve hybrid models more effectively.

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"When class ends and students are doing their own thing, they need to collaborate offline," says Brad Saffer, global education lead for Cisco's education industry solutions group. "Having a platform that allows you to toggle between the two is important."

Diversifying school facilities. Instead of mostly uniform classrooms, schools will need a wide range of flexible learning spaces, including learning pods, areas conducive for small-group work, private rooms for one-on-one tutoring and supports, and larger spaces for lectures.

Conclusion

The challenges to implementing these are significant, but the potential rewards — including providing greater numbers of students with a flexible path to learning that better meets their needs — are even greater. But these changes will go beyond new hybrid models of teaching and learning. They will ultimately reshape the physical appearance of schools, the length and scope of the school day, and the activities and services available on campus and off. And, in the end, reshape the approach to collaboration beyond the walls of the school building. "It's going to take creativity and a community effort," says Schlegelmilch.

This piece was written and produced by the Center for Digital Education Content Studio, with information and input from Cisco.

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