

A Human-Centered Vision for Quality Virtual Learning



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FOREWORD

FINDING COMFORT (AND EXCITEMENT) IN WHAT'S NEW

By Dr. William Hite, Jr., President and CEO of KnowledgeWorks

Count educators, students and their families among those who struggled over the last two years, as K-12 schools became the epicenter of turmoil in local communities. Districts faced more scrutiny than ever — with the media tracking remote learning and safety measures as closely as rising COVID-19 cases and with parents gaining a daily window into what their students were (or weren't) learning. Districts also dealt with the operational and instructional hurdles of “emergency room-to-Zoom” and keeping staff and students healthy, two challenges they had never faced before.

As the leader of one of the largest urban school districts in the country during the pandemic, I can testify that none of that was easy.

Given those challenges, it's natural to long for a “return to normal” — the comfort of that familiar classroom experience we remember from our own childhoods. In the process, it's perhaps also natural to shun tools like remote learning and other technologies that got us through the pandemic but remind us of difficult times.

However, if we're being honest, normal wasn't working for a lot of students before the pandemic. That familiar classroom experience was struggling to equip students with the skills required to keep pace with the demands of a rapidly changing economy.

For as long as I've worked in education, we've been trying to build something new, to fix what's broken, to adapt to changing environments. The post-pandemic phase is no different. Instead of modeling our schools on what existed before March 2020, we need a new vision for education. At KnowledgeWorks, we envision an educational system that provides students with the personalized learning experiences they need to thrive in school, work and life. That future is built on what we know works: investing in teachers and students; understanding the value of good instruction, regardless of the modality; and creating a shared culture of success.

We see that vision in Maya, the hypothetical eighth grader we meet in the introduction of this paper. Her story shows what's

possible if we put aside our biases about the mode in which students learn and instead build our education system around one question: “What learning experience should we provide each student, based on who they are as an individual, so they can develop the competencies they need to be successful? And what does each individual student need in order to have that best-fit learning experience?”

It’s an idea that runs through this paper and is central to KnowledgeWorks’ vision for personalized, competency-based learning. It’s also key to beginning to address the inequities that are rife within our educational system. Because, as we strive to provide that quality learning experience to students, it’s clear that, in a world where opportunities aren’t equally distributed, virtual learning has a role to play in the learning journeys of most students, even if it’s a supporting role. And while quality virtual learning is about much more than technology, well-designed technology and access to it play an important role in personalization as well.

For some, this idea might be disquieting. We’ve seen that in our work with schools that are shifting to competency-based learning models. Even those who are excited are often apprehensive about moving away from the comfortable and familiar.

But there’s good news that might reduce some of their anxiety, namely the core components

of a quality virtual learning experience spotlighted in this paper — focusing on relationships, basing good instruction on quality curriculum, and establishing a culture of success for all students — aren’t unique to virtual learning. They are also vital for quality personalized competency-based learning, experiential learning and work-based learning. And it’s also true for our traditional classroom environments.

Yes, the practice of virtual learning may differ from in-person learning. Like a musician learning a new instrument, a teacher transitioning to virtual learning or a competency-based model must practice. But they’re still teachers, and the fundamentals of good teaching — establishing meaningful relationships with students, providing effective feedback, helping students understand themselves as learners — remain.

Hopefully, these vestiges of the familiar can provide some comfort to educators, families, students and school leaders. It also should excite us because it means that it’s within every school’s reach to create a competency-based system that leverages technology to connect students to learning experiences wherever they might be (and whenever they might take place). It’s not about when or where students learn but what they’re learning and how that helps them thrive.

It means that Maya’s story can be every student’s story.

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For more than 20 years, Whiteboard Advisors has collaborated with the most transformative organizations, individuals and investors in education. Our diverse team of educators, wonks and storytellers brings in-depth understanding of policy, technology and practice to bear on cutting-edge research, powerful writing, and the design of communications and advocacy campaigns that challenge the status quo. Whether we're working with startups or the most established organizations in education, we're passionate about taking breakthrough ideas to scale.



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EXECUTIVE SUMMARY

There has never been a more critical time to explore the role virtual learning can play in educating our children. Districts are grappling with a student mental health crisis, learning loss spread unevenly within and across schools, and unprecedented burnout among teachers — all while feeling the pressure to prepare students for a rapidly changing and uncertain future.

If we know one thing about the future of K-12 education — whether virtual or in person — it's that people are at the heart of it. The relationships between teacher and student, between student and peer, and between educators are what drive learning. In “A Human-Centered Vision for Quality Virtual Learning,” we identify and explore three key themes that are central to the vision for quality virtual learning:

1

It's About
People,
Not Technology

2

Good Instruction
Is Good Instruction,
Whatever the
Modality

3

A Culture Focused
on the Success of
All Students
Is Non-Negotiable

This paper presents a vision of quality virtual learning that's focused not on technology but rather the learning experiences and the people vital to them. It defines “virtual learning” and its potential uses in K-12 education, then explores the components of a quality virtual learning program derived from research and interviews with dozens of experts and practitioners. It acknowledges that not all learning is best accomplished virtually, but it also challenges readers to consider experiences where online approaches may be the best option — or, in some cases, the only equitable one.

Of course, the paper itself is not without bias, and it is far from an exhaustive treatment of the topic. It was commissioned by a provider of virtual and blended learning experiences and produced by a firm that is enthusiastic about the potential for virtual learning in K-12 education. We hope that readers will consider it within that context and treat it as an invitation for further discussion and exploration of the topics raised.

INTRODUCTION: THE VISION



Imagine an eighth grader. Let's call her Maya.

Like many of her peers, Maya rides the bus to school, where she checks her learning dashboard on her laptop and confirms her day's schedule. After homeroom, she's off to her first class: math. Because she wants to be an engineer, she's taking pre-algebra along with an online program to strengthen the math skills she hasn't yet mastered. Instead of attending pre-algebra with her classmates, though, she works one-on-one with a tutor, something her learning coach set up after seeing Maya's math assessment.

Second period is her favorite class: environmental engineering. After Maya told her learning coach

about her passion for the environment, he arranged for her to take Intro to Environmental Science and Engineering online with a local university. Maya and two other students watch the professor's video lesson from her school building, where a coach stands by to answer questions. Because 40% to 50% of postsecondary students take at least one class online, she's also preparing for college by learning virtually.¹ After that, it's time for her weekly in-person writing workshop, where she gets feedback from her peers. Maya loves hearing their thoughts about her work, but she learns even more by critiquing other students' writing, which definitely is helping in other subjects.

1 "FAST FACTS: Distance Learning," *National Center for Education Statistics*, <https://nces.ed.gov/fastfacts/display.asp?id=80>

While this vision is hypothetical, it's not science fiction. Maya's experience is a composite of real-life scenarios happening in schools across the country, including some highlighted in this report. And higher education has been incorporating virtual learning for years, with nearly "three-quarters of the nation's college students ... enrolled in an education program offered at least partially online in 2020."²

Yet some educators may find this vision speculative or out of reach in the K-12 ecosystem. For starters, the structure of Maya's day differs drastically from what most people think of as virtual learning: a chaotic Zoom classroom during the pandemic, or an isolated and disengaged student clicking through an online course. Maya's experiences are steeped in human relationships and focused on high-quality instruction. And, importantly, the structure of her school day prioritizes *what* she learns over *how* and *where* she learns it — in-person or virtual, in a traditional classroom or with a tutor, led by a teacher or led by students.

All of that is possible because COVID-19 changed K-12 education, perhaps permanently. Schools are awash in technology thanks to the single-largest influx of cash by the federal government to expedite remote learning. District leaders are leveraging that windfall to invest in more virtual

“The future of learning is hybrid and ubiquitous. Kids can learn anytime and everywhere.”

– D'Andre Weaver, Chief Digital Equity Officer, Digital Promise; Former Superintendent, DeSoto Independent School District, Texas

programs, with over 70% planning to introduce new courses or expand what they offer.³

The pandemic has redefined “school” and “learning” much like it did the 9-to-5 workday. They're no longer confined to one desk in one building during specific hours. Sal Khan, founder of Khan Academy, has long argued that “learning should not be bound by time or space,”⁴ and his vision is finally taking shape. Thanks to these technological advancements, along with the inexhaustible creativity of teachers, the ways in which K-12 students can learn are now boundless. “The future of learning is hybrid and ubiquitous,” said D'Andre Weaver, Chief Digital Equity Officer at Digital Promise and former superintendent of DeSoto Independent School District in Texas. “Kids can learn anytime and everywhere.”

There has never been a more critical time to explore the role virtual learning can play in educating our children. Districts are grappling with a student mental health crisis, learning loss spread unevenly within schools and unprecedented burnout among teachers — all while feeling the pressure to prepare students for a rapidly changing and uncertain future. Those challenges require solutions that, to paraphrase Khan, are unbound by time and space.

This report presents a vision of quality virtual learning that's focused not on technology but rather the learning experiences and the people vital to them. It defines “virtual learning” and its potential uses in K-12 education, then explores the components of a quality virtual learning program derived from research and interviews with dozens of experts and practitioners. It acknowledges that not all learning is best accomplished virtually, but it also challenges readers to consider experiences where online approaches may be the best option — or, in some cases, the only equitable one.

2 “Higher Education: Education Needs to Strengthen Its Approach to Monitoring Colleges' Arrangements with Online Program Managers.” *U.S. Government Accountability Office*, April 5, 2022. <https://www.gao.gov/products/gao-22-104463>

3 NCES, Tylton Partners K-12 COVID Trends Survey 2020

4 Patel, Nilay and Sophie Erickson. “Remote Learning is Here to Stay. Can We Make It Better?” *The Verge Podcast*, November 17, 2020. <https://www.theverge.com/21570482/remote-learning-khan-academy-interview-decoder-podcast>

vir·tu·al learn·ing

/ˈvərCH(ō)əl lərnɪŋ/

Using technology as a medium to deliver instruction, including self-directed learning and teacher-facilitated instruction (where there is some distance in geography and/or time between the teacher and student). It's not to be confused with the broader category of **digital learning**, which encompasses the general use of technology to support teaching and learning.

What Is Virtual Learning? Changing Perceptions and Uses

Over the years, K-12 educators have defined “virtual learning” in a variety of ways, reflecting the fluid nature of the mode itself. Before the pandemic, it was viewed as a practice with limited applicability to a small number of students. The term “e-learning” came about in 1999, but only a handful of K-12 students — as few as 5% in 2019, by one estimate⁵ — experienced any of its benefits before COVID-19.

“While virtual programming grew significantly during the first two decades of the century, that growth still reflects a small percentage of the total K-12 student population,” said Michael Horn, co-author of *Disrupting Class* and *Blended*, “and the virtual programs that districts did adopt — for homebound or homeschooled students and those in alternative programs or who needed to recover credits — were often far removed from the day-to-

day classroom instruction that is the primary focus of district and school leaders.”

While the educators working with these pioneering students have been talking about quality virtual learning for more than two decades, it's a new conversation to people outside those circles. For some, it's also a futile discussion, reflecting negative stereotypes about virtual learning that were reinforced by the generally unsatisfactory “emergency remote” experience of the pandemic. Families were largely displeased with the experience, with only 30% finding it satisfactory.⁶

At the same time, families have continued to indicate that virtual learning can be effective if done well. A 2020 survey revealed that 90% believe high-quality virtual instruction is possible with the right resources and training.⁷ Reflecting this sentiment, more than 65% of families in the District of Columbia said that the district should offer both in-person and online instruction and that parents should be able to choose between the modes.⁸

5 2.7 million K-12 students were involved in some aspect of virtual learning. (Schroeder, Bernhard. “Disrupting Education: The Rise of K-12 Online And The Entrepreneurial Opportunities.” *Forbes*, August 14, 2019. <https://www.forbes.com/sites/bernhardschroeder/2019/08/14/disrupting-education-the-rise-of-k-12-online-and-the-entrepreneurial-opportunities/>.)

According to the U.S. Census, K-12 enrollment was 53 million. (“Census Bureau Reports Nearly 77 Million Students Enrolled in U.S. Schools.” *Census.gov*, October 8, 2021. <https://www.census.gov/newsroom/press-releases/2019/school-enrollment.html>.)

6 Horowitz, Juliana Menasce and Ruth Igielnik. “Most Parents of K-12 Students Learning Online Worry About Them Falling Behind.” *Pew Research Center*, October 29, 2020. <https://www.pewresearch.org/social-trends/2020/10/29/most-parents-of-k-12-students-learning-online-worry-about-them-falling-behind/>

7 “Parents Want Data to Understand the Impact of School Closures and Support Recovery.” *Data Quality Campaign*, June 2020. <https://dataqualitycampaign.org/wp-content/uploads/2020/06/DQC-Parent-Poll-06192020.pdf>

8 Stein, Perry and Scott Clement. “Most D.C. parents satisfied with schools during pandemic, Post poll finds.” *The Washington Post*, February 23, 2022. <https://www.washingtonpost.com/education/2022/02/23/dc-schools-pandemic-poll/>

“The pandemic has definitely shifted the discussion around virtual learning as something not just for other students,” said Horn. “While most people didn’t enjoy remote learning, some students actually thrived and many came to appreciate opportunities for online learning, in particular parents who valued the transparency it provided into their students’ learning.”

Not all parents change their perspectives on virtual learning on their own. Nicholas Wohlgemuth, Director of Secondary Schools for Gadsden Independent School District in Gadsden, New Mexico, said the district had to work hard to help families understand that the fully virtual program was different this year — “that during [emergency] remote learning, kids were just sitting and not getting quality instruction. What we’re doing now in offering a virtual program is a whole new idea,” he said.

But perceptions are changing, evident from the growth of virtual programs.

In fact, 73% of districts nationwide plan to expand their virtual offerings, with some envisioning more than 10% of kids participating.⁹ Fulton County Schools in Georgia, for example, opened a virtual school in fall 2020 that now has 1,500 full-time students in grades 3 through 11, with no plans to slow down.¹⁰

5%

of K-12 students experienced “e-learning” before COVID-19

73%

of districts nationwide plan to expand their virtual offerings

90%

of families believe high-quality virtual instruction is possible with the right resources and training

9 NCES, Tyton Partners K-12 COVID Trends Survey 2020

10 From conversation with district staff.

TAXONOMY OF VIRTUAL LEARNING

▶ DISTANCE LEARNING

Terms that frame virtual learning based on the physical location of the students vis-a-vis the school

▶ REMOTE LEARNING

▶ DIGITAL LEARNING

Broad term for any use of technology in education, encompassing virtual learning as well as use of any digital or technological tools (e.g., a student using an app for 15 minutes during a traditional class period)

▶ ONLINE LEARNING

▶ E-LEARNING

Terms that frame virtual learning based on the use of technology; while they functionally are interchangeable with virtual learning, they are somewhat anachronistic

▶ BLENDED LEARNING

▶ HYBRID

Terms that refer to instructional models that combine virtual and traditional in-person learning

▶ EMERGENCY REMOTE LEARNING (ERL)

Term that exclusively refers to the sudden move of K-12 education to a virtual setting in March 2020 (though could be used in the future for additional pandemic-type scenarios)

CASE STUDY

National Ed Equity Lab

Launched in 2019, the National Ed Equity Lab seeks to advance economic mobility in historically underserved communities by empowering students to advance and demonstrate college readiness to admissions offices — and themselves. They do that by offering and supporting college credit-bearing courses from top colleges and universities in teacher-led high school classrooms across the country, at no cost to students. The consortium of colleges and universities partnering with the Ed Equity Lab includes ASU, Brown, Barnard/Columbia, Cornell, Georgetown, Howard, Princeton, Stanford, Spelman, Wesleyan, Wharton, University of Pennsylvania and others; together they are currently providing access to students in over 90 districts and 180 Title I high schools, and are on track to reach 10,000 students by the end of 2022. More than half of Ed Equity Lab high schools now offer multiple college courses. More than 80% of students who have taken a course have passed and earned widely transferable college credits, a success rate that owes much to the structures put in place to support each student.

“We knew that students often struggle in fully self-directed environments where they may be learning in isolation,” said Alexandra Slack, Chief Operating Officer at the National Ed Equity Lab, a former teacher and nonprofit leader. “So our model is based on leveraging community and scalable supports to ensure that students are set up for success, which often goes beyond learning the content to things like aspiration and exposure to goal-setting and time-management.”

The Lab’s instructional model combines the best of virtual and in-person learning in replicating the college experience. Students receive instruction asynchronously from a professor at the university in their high school classrooms, then get additional support via a weekly Zoom call from a university teaching fellow (undergrad or graduate student), who also does the grading. The

Lab also hosts virtual study halls, special career and college nights, and celebrations with families, all to create a supportive college-going community.

The classroom co-teacher also plays a critical role. Teachers do not have to be subject matter experts; instead, they’re tasked with supporting student success and learning along with their students.

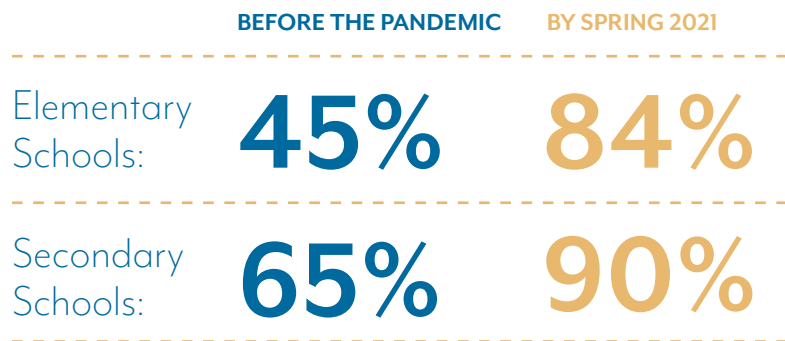
“Our teachers have been enthusiastic partners across schools,” says Slack. “Many teachers have reported that this opportunity has reengaged them and reminded them why they went into the teaching profession.” That’s consistent with the results of the Lab’s latest surveys with Johns Hopkins University. Over 90% of all teachers surveyed indicated that this was a positive or very positive experience, and 95% would recommend it to other teachers. In Miami-Dade County Public Schools, one of the nation’s largest school districts, the district team reported that a number of teachers said that participating in this program was the highlight of their year and energized them to keep going.

“We’re hearing from principals and district leaders in many of our districts that participation is viewed as a retention strategy for teachers; they feel supported and impactful,” Slack shared. “That’s a very exciting finding, and we’re exploring how to make that teacher support even greater next year.”

Chief Impact and Academic Officer Ariel Murphy Bedford, a former New York City teacher and chief of staff to Louisiana State Superintendent John White, says, “Our goal is to show students what they are capable of, to shift mindsets, and to help give them the skills and credentials to get into the best matched college for them. Our hope is that this creates new pathways into mobility engine colleges for students who have historically been denied that opportunity.”



Percentage of educators who say their schools offered devices to students at a one-to-one ratio



Akron Public Schools established a new online school for the 2021-22 school year and is educating more than 1,000 K-12 students in a full-time virtual program. “Before COVID, we had maybe 20 to 40 kids who wanted to take charge of their education with an online option,” said Tamiko Hatcher, the district’s Director of Speciality Schools. “Then all of a sudden, we had 20,000 kids online in March 2020. This is the equivalent of the comet hitting the earth, causing extinction of the dinosaurs. This is

“When designed well, with students and their individual needs and learning contexts in mind, virtual learning holds the potential to empower students and mitigate educational inequities often rooted in geography and socio-economics.”

– Phyllis Lockett, CEO of LEAP Innovations

Darwinism meets education. Those districts that fail to evolve will become extinct.”

The expanded use of technology in 2020 also opened doors for addressing learning loss and other pandemic-related challenges through virtual learning. The \$129 billion from the federal American Rescue Plan Act of 2021 fueled the growth of schools providing a device to every student. Before the pandemic, 45% of elementary school educators and 65% of secondary educators said their schools offered a one-to-one ratio. By spring 2021, those numbers were 84% and 90%, respectively. “

“When designed well, with students and their individual needs and learning contexts in mind, virtual learning holds the potential to empower students and mitigate educational inequities often rooted in geography and socio-economics,” said Phyllis Lockett, CEO of LEAP Innovations. “For instance, we see the different ways technology can enable students to see a world that they may not otherwise have access to and engage in learning experiences that may not be possible within the confines of the four walls of their classroom to develop the critical skills and knowledge they need to be successful in school and a rapidly changing workforce.”

11 Klein, Alyson. “During COVID-19, Schools Have Made a Mad Dash to 1-to-1 Computing. What Happens Next?” *EdWeek*, April 20, 2021. <https://www.edweek.org/technology/during-covid-19-schools-have-made-a-mad-dash-to-1-to-1-computing-what-happens-next/2021/04>

Technology can also allow for the flexibility to rethink roles and access to expertise, as the National Ed Equity Lab’s example above demonstrates. Districts are leveraging virtual learning to share interventionists and specialists across schools, according to Beth Rabbitt, CEO of The Learning Accelerator. “A teacher may log in — similar to a professor’s office hours — to virtually work with and support students across multiple campuses,” she said. Districts also are sharing resources with each other, a common practice long before the pandemic for rural communities that struggle with resources. Allen Pratt, Executive Director of the National Rural Education Association, said he has seen instances where “two or three districts work together creatively to share virtual learning programs, teachers and even students.”

But given the growing shortage of educators, rural districts aren’t the only ones turning to virtual learning for relief. Gadsden Independent School District, for example, partnered with a virtual learning provider to provide teachers for science classes that would otherwise have had no regular instructor. Now the district is exploring ways to offer standalone electives to middle and high school students virtually. “We want kids to have a rich selection of electives to choose from,” said Wohlgemuth. “If a student says, ‘I’m really interested in taking Chinese,’ we want them to have that. If a student wants to pursue career or technical education, that’s another aspect we’re looking at, too.”

Virtual programs also can serve populations of students whose needs aren’t met through traditional instruction. More than 110,000 students were expelled during the 2013-2014 school year, and more than 2.6 million received at least one out-of-school suspension.¹² Disproportionately, those students are Black and male, part of the reason why the U.S. Department of Education’s Office of Civil Rights has been closely monitoring that data for years. Beginning in fall 2022, Friendship Public Charter School in Washington, D.C., will use virtual learning

“A teacher may log in — similar to a professor’s office hours — to virtually work with and support students across multiple campuses.”

– Beth Rabbitt, CEO, The Learning Accelerator

as an alternative for students who would otherwise be expelled. “Instead of working towards expulsion and digging students into a deeper hole that they may never climb out of, how can you work towards giving someone a chance to reset, reflect, and then return to your (school) poised for success?” said Ken Cherry, Friendship’s Chief of Staff.

Some other examples of virtual learning serving these critical populations:

- ▶ At Odyssey Junior and Senior Charter High School in Palm Bay, Florida, retired principal Monica Knight said they’re a good fit for homeless students who move out of the district. “We put them in a full virtual program until they were able to come back or transition into another permanent setting,” she said.
- ▶ At Odyssey Online Learning, a virtual school in South Carolina, approximately 59% of students experience one or more risk factors, including transience, homelessness, or qualifying for free or reduced lunches. It’s also a school of last resort for many students who have dropped out of their traditional brick-and-mortar school. “What we’re doing is working,” said Ashley Owings, the school’s executive director. “And when you see our students walk across the stage, after all that they have been through, to complete this chapter of their learning journey, those moments speak for themselves.”

12 “Status and Trends in the Education of Racial and Ethnic Groups: Indicator 15: Retention, Suspension, and Expulsion.” *National Center for Education Statistics*. https://nces.ed.gov/programs/raceindicators/indicator_rda.asp

Let’s revisit Maya, our hypothetical eighth grader. Her learning experience is incredibly rich and dynamic, centered on her aspirations, passions and challenges and not constrained by limitations of geography. As you look closer at her school day, three key themes emerge that are central to the vision for quality virtual learning — and consistent in interviews with educators, school and district leaders, and experts in the field. The themes aren’t an exhaustive list of best practices or standards but rather a way to level-set this transformative view of education unbundled from time and location.



1. **It’s About People, Not Technology.** Contrary to the vision of the lonely student toiling away on online modules, Maya is engaged with a vibrant learning community of teachers and peers.
2. **Good Instruction Is Good Instruction, Regardless of Modality.** It does, however, require support, training and an intentional effort to improve instruction in all settings. Training and planning for virtual instruction must be specialized because engaging with students and meeting their academic needs in the virtual world requires different approaches than in a brick-and-mortar setting.
3. **A Culture Focused on the Success of All Students is Non-Negotiable.** Maya’s district embraces learning in all modes as part of its culture, something apparent from its investment to enable “anytime, anyplace” instruction.

Quality virtual learning will, by necessity, never be one thing. The potential here is in its

flexibility and in the inherently evolving nature of what virtual learning can be. The adaptability of virtual learning means that program models will rarely be the same because the learners aren’t the same. And designing programs with the needs of learners at the forefront is critical for good outcomes. “Your online programs have to be nimble enough to really have a deep understanding of why kids are joining the online program and the ability to then adapt to provide them what they need to be successful,” Cherry said.

One note about the themes and components discussed below: They’re program- and technology-agnostic. This vision for quality virtual learning is intentionally personalized and responsive; there’s no one-size-fits-all model by design. For example, a program designed for a high school student to work independently on an online course may work for one but not another — or even for the same student in a different subject.

KEY THEME 1:

IT'S ABOUT PEOPLE, NOT TECHNOLOGY



Relationships matter — in life and in schools. It has become a mantra in the K-12 ecosystem in recent decades, and with good reason: Research consistently demonstrates the primary importance of student relationships, particularly for learners who face challenges. Dr. Melina Uncapher, lead program director at the Advanced Education Research and Development Fund, said that “[o]ur brains have evolved to thrive in communities and relationships — this is our evolutionary advantage.” As a result, she said, “[t]he ‘social brain’ is one of the most powerful learning mechanisms we have.”¹³

That means that if all students are to thrive, learning experiences must be designed with relationships at the center — far from the isolated vision many people have of virtual learning. Maya’s story shows that doesn’t have to be the case. Over the last two decades, schools across the country have been implementing quality virtual learning models where students consistently thrive academically and socially. For instance, Friendship Public Charter School has operated a fully virtual school for nearly 10 years. Cherry said students in Friendship’s virtual programs outperform students in the school’s in-person programs in math and English/language arts.

13 “From Crisis to Creativity,” *Gradient Learning*, 2022.

The Core Student Relationship: Ensuring Every Student Is Seen

It's not enough for teachers to socially engage with students. They must truly know them and understand their individual learning contexts — their opportunities and challenges, their strengths and weaknesses. “People sometimes mistake a kind of casual familiarity and friendliness for the promotion of really deep relationships that are about a child’s potential, their interests, their strengths and weaknesses,” said Mary Helen Immordino-Yang, a cognitive neuroscientist at the University of Southern California who studies the effects of emotions and mindsets on learning.¹⁴

This is particularly true in the context of virtual learning experiences, where educators often can't “see” the learner in traditional ways and may struggle to “know” them. Yet the flexibility of virtual models and the technologies they use create potential opportunities for core relationships to thrive. At Odyssey Junior and Senior Charter High School, for instance, every virtual student receives a “champion” who facilitates relationship-building between students and their online instructors. Akron Public Schools this year hired full-time mentors, each with a caseload of about 40 online students, to help students navigate online platforms, stay engaged and achieve their goals.

That mentor/success coach model is a potential antidote to the need for teachers to wear so many other hats: counselor, social worker, friend. Imagine if educators knew that every one of their students had an adult monitoring their educational progress, their personal journeys. Imagine if middle and high school students had someone to talk to about what they like (or don't like) or when the work feels too hard. Virtual programs are leading the way in those transformations.

Creating a Community of Learners

Given the perception that online education takes place in isolation, it's worth noting that teachers are critical members of a student's learning community in virtual learning programs. While some students can successfully navigate a virtual program independently, the vast majority need a teacher to thrive. A December 2020 report showed that Black and Hispanic students were significantly less likely than white students to have access to a live teacher — whether in person, by phone or by video.¹⁵ The same report found that students of color witnessed the biggest declines in academic performance in the pandemic's early months.

“Collaboration and social interaction can be powerful learning experiences because they encourage deeper processing and engage the ‘social brain,’” said Katie Martin, Chief Impact Officer at the Learner Centered Collaborative. She said engaging the social brain is even “more important during remote instruction than ever because creating the community of learners to connect and collaborate with one another will be what keeps learners coming to class and what will sustain more powerful learning over time.”¹⁶

That idea is part of why Friendship Public Charter School created a microschoo in northwest Washington, D.C. Realizing that in-person opportunities are important for socialization and experiential learning, virtual students come to the school about twice a week. In the Quakertown Community School District in Bucks County, Pennsylvania, elementary-grade families were required to sign a contract agreeing to serve as learning coaches for their virtual students, said Tom Murray, the district's former director of technology and current Director of Innovation at Future Ready Schools. Both are examples of communities that support online students, keeping them engaged and connected with their instruction.

14 Sparks, Sarah D. “Why Teacher-Student Relationships Matter.” *EdWeek*, March 12, 2019. <https://www.edweek.org/teaching-learning/why-teacher-student-relationships-matter/2019/03>

15 Dorn, Emma, Bryan Hancock, Jimmy Sarakatsannis and Ellen Viruleg. “Mind the Gap: COVID-19 and learning loss—disparities grow and students need help.” *McKinsey & Company*, December 8, 2020. <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/covid-19-and-learning-loss-disparities-grow-and-students-need-help>

16 “6 Ideas for Creating a Remote Community of Learners.” <https://katiemartin.com/2020/04/12/6-ideas-for-creating-a-remote-community-of-learners/>

KEY THEME 2:

GOOD INSTRUCTION IS GOOD INSTRUCTION, WHATEVER THE MODALITY



Good instruction is how students learn, whether virtual or in person. At the same time, pedagogical approaches may differ in a virtual environment. One explanation offered about why the emergency remote learning of 2020 was unsuccessful is that teachers — through no fault of their own, because nobody was prepared for this sudden shift — used their existing lessons and practices from in-person school instead of translating practices to a virtual model. “Making the transition from a brick-and-

mortar teacher to being a full-time virtual teacher wasn’t easy. As a seasoned educator, I had to learn a whole new approach to teaching and embrace new methods for connecting with learners through the screen. Some of my old tried and true practices that I relied on in my classroom no longer fit my learners and my new virtual world” said Dr. Tiffany Barlow, an Edmentum educator. “Despite my new learning and the change in my instructional delivery, the core principles don’t really change — things like

establishing a strong relationship with your students and providing quality feedback remained vital — it's just that teaching in a virtual setting required different strategies and what works in an in-person setting can be disastrous in a virtual context.”

Virtual Pedagogy

Not surprisingly, planning lessons, customizing curricula and other teacher tasks can look or feel different in a virtual environment. Zach Blattner, currently the Senior Director of Teacher Professional Education at the Relay Graduate School of Education, had been one of the founding faculty members of Relay Online, where he taught virtual graduate-level courses to educators. As Relay's Teacher Professional Education team began offering workshops to teachers on how to teach in virtual environments, it started with an initial hypothesis: the qualities, strategies and skills that made Relay Online effective for graduate students would translate to instruction in grades 3 through 12 as well. “We focused a lot on engagement and about being even more intentional about everything than you would be in a physical classroom — building relationships, creating organic moments, directions to students, and planning.” Ultimately, though, the Relay team found that “at the end of it all, it just gets back to good teaching. You have to plan; you can't just wing it,” he said. But at the same time, equipment and technological tools can help. “For instance, many teachers find that having two screens is a game-changer, as is standardizing the ways they access apps and programs across schools and districts,” he said.

Classroom management is another area in which traditionally in-person teachers need training and guidance. As the definition of classroom management has evolved over time to encompass both “the maintenance of on-task student behavior” as well as “the process of creating a positive social and emotional climate in the classroom,” this is no small task.¹⁷

“Despite my new learning and the change in my instructional delivery, the core principles don't really change — things like establishing a strong relationship with your students and providing quality feedback remained vital — it's just that teaching in a virtual setting required different strategies and what works in an in-person setting can be disastrous in a virtual context.”

– Dr. Tiffany Barlow, Edmentum educator

It's important that school systems provide the right training and support systems so teachers can build productive relationships virtually. “Teaching effectively in a virtual environment is different,” said Liz Lee, Director of Online Learning at the International Society for Technology in Education (ISTE). “From creating effective learning communities in virtual classrooms, to designing strong lessons and providing meaningful feedback, teachers need professional learning opportunities that go beyond training on a specific tool and really help teachers learn about good pedagogy in virtual environments.”

For example, teachers need access to specialists who can help them adjust virtual delivery to accommodate students with different learning abilities. “Teachers also need training on how to shift their mindsets,” said Jennifer Levine, Director of Professional Learning at the Center

17 Sahin, I. T., Tantekin-Erden, F. & Akar, H. (2011). The influence of the physical environment on early childhood education classroom management. *Eurasian Journal of Educational Research*, 44, 185-202.

for Applied Special Technology (CAST), a nonprofit educational research and development organization that created the Universal Design for Learning framework to make learning more inclusive. “Universal design means that teachers have to believe that if there is a student who isn’t learning, the problem is with the lesson, not with the student.”

That’s not to say that students aren’t experiencing difficulties now; they were even before the pandemic. Daniel Oscar, CEO of the Center for Supportive Schools, wrote in 2017 that “schools are places where too many kids do not want to be.”¹⁸ He cited data showing that 24% of fifth graders were disengaged from school, increasing to 56% of the high school students who hadn’t already dropped out. Unfortunately, disengagement increased significantly in response to students’ experiences with “emergency remote” learning.¹⁹ About 3% of the K-12 population, or 1.3 million students, didn’t return to districts for the 2021-22 school year.²⁰ For the students who remained, the combination of disengagement and stress may also account for the growing crisis in student

“Universal design means that teachers have to believe that if there is a student who isn’t learning, the problem is with the lesson, not with the student.”

–Jennifer Levine, Director of Professional Learning at the Center for Applied Special Technology (CAST)

motivation. One survey found that 88% of teachers believe their students are less motivated because of the pandemic.²¹

Student engagement can also bring up questions of accessibility and whether virtual instructional design takes diverse learners into account. CAST CEO Lindsay Jones said designing for the margins helps all students. While “some communities have historically felt shut out of virtual learning, the pandemic has really opened that up. We have much more flexibility now and people are more open to thinking differently,” she said.

Quality Content Design

How do we create engaging, rigorous content? Whether a school is creating its own curriculum and materials, purchasing off-the-shelf or using a combination of the two, it’s important to ensure that it provides students with quality content. There are any number of rubrics to help educators vet content. Some common considerations include:

- ▶ Does the curriculum build up to the desired learner outcomes?
- ▶ Is the curriculum up to date and aligned to state standards?
- ▶ Is it relevant, connecting student learning with lived and real-world experiences? Does it reflect the diversity of students and the community?
- ▶ Does it ask students to complete higher-order instructional tasks? Does it challenge students?
- ▶ Does it provide opportunities for student voice and choice, peer collaboration, and demonstration of learning?

18 Oscar, Daniel. “A Solution for Student Disengagement.” *Edutopia*, May 23, 2017. <https://www.edutopia.org/blog/solution-student-disengagement-daniel-oscar>

19 De La Rosa, Shawna. “Student engagement remains a challenge in distance learning.” *K-12 Dive*, September 9, 2020. <https://www.k12dive.com/news/student-engagement-remains-a-challenge-in-distance-learning/584793/>

20 “Nation’s Public School Enrollment Dropped 3 Percent in 2020-21.” *NCES.ed.gov*, June 28, 2021. https://nces.ed.gov/whatsnew/press_releases/06_28_2021.asp

21 “Data Snapshot: What Teacher and Student Morale Looks Like Right Now.” *EdWeek Research Center*, January 6, 2021. <https://www.edweek.org/leadership/data-snapshot-what-teacher-and-student-morale-looks-like-right-now/2021/01>

Quality Reading Instruction in Virtual Settings

Much of the discourse about virtual learning is about best practices or why it's good or bad. But what does quality reading instruction look like in a virtual setting? To understand that, you must know the challenges teachers face teaching reading both in person and virtually, said Michelle Brown, founder and CEO of CommonLit. Her nonprofit seeks to ensure that all students, especially those in Title I schools, graduate with the reading, writing, communication and problem-solving skills to be successful in college and beyond.

"It's important to appreciate that, in general, students don't speak or write enough in reading classrooms, regardless of the setting," she said. "Based on our research, students only speak for 1.6 minutes for every three hours of instructional time. Similarly with writing: middle school students on average write one multi-paragraph essay every six months."

Brown believes the first step, whether in person or virtual, is increasing the minutes that students practice reading, writing and communication. That can be a particular challenge for virtual teachers new to the setting. Combine that with trying to manage a virtual classroom, the challenges of technology logistics and students needing the teacher's help, and "it just adds to more wasted time that isn't being used to have students read, speak and write," she said.

Michelle Elia, the Ohio Literacy Lead for the Ohio Department of Education, trained thousands of teachers across the state as they shifted to emergency remote learning. She said that pedagogy, classroom management, tech management and actually teaching all must take place — simultaneously — in both in-person and virtual settings. But in the virtual world, she said, teachers have to "kick it up a notch."

"I always joke that teaching is a performance art; you're putting on a show for kids to keep them engaged in the learning process," Elia said. "But when you're online, you have to kick that performance art up a couple notches to

really motivate and engage all those learners while still giving them an opportunity to participate and talk and engage in the conversation as well."

For Brown, it comes back to the concept that's at the core of CommonLit: masterful facilitation. For virtual settings, that means deep, thoughtful consideration of virtual logistics and then thinking how a tool can be used for more reading or discussion. Zach Blattner from Relay echoed that sentiment, noting that in virtual settings, "educators must be even more intentional about their norms and routines to not waste class time with what can be the distractions and disruptions of the technology."

Brown notes that virtual learning may help address some of the current challenges in reading instruction — like the lack of writing, which often gets cut out of lessons due to time constraints. "Virtual platforms can provide a great tool to tap a great underutilized resource that is proven by research to improve student writing: peer feedback," she said. "It also creates opportunities to leverage staff in creative ways, by for instance utilizing a dedicated virtual writing coach who is an expert in providing feedback to student written work."

Tutoring is another area where technology can facilitate virtual learning. Elia said she tutored students remotely "just to see if it was possible. It is absolutely possible," she said, but only with careful planning and the strategic use of resources such as a document camera, slide decks, Google Jamboard and annotation tools. Given the shortage of educators, tutors included, technology allows schools to share human capital across district lines, meaning that "students could still get tutoring from shared resources in this virtual environment, which is exciting," she said.

Brown and Elia are hopeful for how virtual learning can be used to get students those precious minutes of practice with reading and writing. Learning to read and write isn't dependent on a physical place or educational mode; it requires planning, training and a focus on what's proven to work.

But creating or purchasing a curriculum that challenges students with higher-order instructional tasks doesn't mean students will complete them. That dichotomy is a critical part of Richard Elmore's Instructional Core. Elmore combined the "essential interaction between teacher, student, and content that creates the basis of learning" — the core — and created a model for "instructional rounds" based on those used with medical school students in teaching hospitals.²² The Instructional Core model posits that the three-way relationship between what a student learns (the content), how it is taught (the teacher) and how it is received (the student) is the most important part of teaching. Recent research argues for adding a fourth component in light of the pandemic: the family.²³ The Instructional Core and instructional rounds allow educators to step back to consider the interplay between these foundational components and engage in deep thinking about their own practices.²⁴

Teachers have been modifying curricula for decades (or perhaps always) for a number of reasons.²⁵ Sometimes it's to meet students where they are, but more often it's to meet the time

While some students can succeed in completely student-led virtual learning experiences — the proverbial student alone in front of a computer screen — that model won't work for most students.

constraints of the modern classroom.²⁶ Research shows that when teachers customize curricula in that way, the rigor almost always decreases.²⁷ Unfortunately, that can involve eliminating tasks that challenge students, such as writing assignments that are time-consuming to grade.

The practice of modifying adopted curricula also occurs in virtual programs, where changes are much easier to spot because assignments and student work are visible through the learning platform. Some districts are opting to work with external partners to provide instruction and/or content for virtual options. Nicholas Wohlgenuth in Gadsden said leaders knew the district didn't have the experience or capacity to provide the kind of quality they wanted for students in a virtual program. "We really wanted to do this well, to create an opportunity for our kids, and to begin building what will eventually be a standalone, fully virtual school," he said. "You need a willing partner that wants to help, and has the expertise."

The idea that good teaching and quality curriculum matter for virtual learning should not be revelatory, and it isn't for students who have experienced quality virtual learning. But that hasn't been the experience for enough students either before or during the pandemic. While some students can succeed in completely student-led virtual learning experiences — the proverbial student alone in front of a computer screen — that model won't work for most students. For those students, quality instruction — and in particular a good virtual learning teacher — is critical to their success. As such, districts need to be intentional in developing and evaluating educator skills in virtual environments.

22 Blanding, Michael. "Treating the 'Instructional Core': Education Rounds." *Harvard Graduate School of Education*, May 12, 2009. <https://www.gse.harvard.edu/news/uk/09/05/treating-instructional-core-education-rounds>

23 Chu, Elizabeth, Andrea Clay and Grace McCarty. "Fundamental 4: Pandemic Learning Reveals the Value of High-Quality Instructional Materials to Educator-Family-Student Partnerships." *Center for Public Research and Leadership*, July 2021. <https://cprl.law.columbia.edu/content/fundamental-4-pandemic-learning-reveals-value-high-quality-instructional-materials-educator>

24 Roy, Pat. "Focus on the instructional core." *National Staff Development Council*, December/January 2009. <https://learningforward.org/wp-content/uploads/2008/12/nsdc-standards-dec08.pdf>

25 Pondiscio, Robert. "Education's Dirty Little Secret." *U.S. News & World Report*, May 6, 2016. <https://www.usnews.com/opinion/articles/2016-05-06/why-teachers-rely-on-google-and-pinterest-for-course-materials>

26 Pondiscio, Robert. "The unexamined cost of teachers' time spent choosing instructional materials." *Flypaper*, Thomas B. Fordham Institute, January 28, 2021. <https://fordhaminstitute.org/national/commentary/unexamined-cost-teachers-time-spent-choosing-instructional-materials>

27 Ibid. referencing <https://opportunitymyth.tntp.org/> and RAND

KEY THEME 3:

A CULTURE FOCUSED ON THE SUCCESS OF ALL STUDENTS IS NON-NEGOTIABLE



Based on interviews with virtual program operators and other experts in the field, the secret to their successes lies in their focus on people and creating a culture that encompasses both in-person and virtual experiences. Technology is important but is one of many systems in place to support students, educators and families. “The culture of a school, and the people working there, is really what matters to running any kind of educational program including technology,” said

Pratt of the National Rural Education Association. “The districts who had focused on culture before the pandemic are the ones we saw had the easiest transition to remote [instruction] in 2020.”

How does an educator, district administrator, student or family member know if the student is succeeding in a virtual experience? Moreover, how can an educator or administrator know if the program as a whole is successful?

Just as they do in traditional in-person classroom settings, student assessments in virtual programs can provide a window into answering those questions. That includes the results of formative and benchmark assessments, unit and curriculum assessments embedded in the virtual content, and even end-of-year assessments. Unlike traditional in-person classrooms, virtual programs can easily generate data on student progress toward completion, attendance and time on task.

While that data is useful, it's often insufficient, particularly if the goal is to support student success and determine ways to improve the virtual experience for every student. Does a high completion rate for a course mean that students found the materials engaging and interesting? Or that it wasn't challenging enough? Similarly, assessment data often fails to paint an adequate picture for families about what their student has learned. As Devin Vodicka, CEO of Learner-Centered Collaborative, said, "More parents are asking questions about district assessment data, which either isn't reaching them or if it does, it isn't too helpful in giving them an idea of what their student has or hasn't learned. A

"Districts and educators are overwhelmed with a wide array of new digital tools, and developing the systems and infrastructure that allow for the seamless integration of those tools is important for the quality of the virtual teaching and learning experience and in supporting equity."

—Jean-Claude Brizard, CEO of Digital Promise

student may get a 72 on an assessment, but a parent looking at that doesn't really know what that means."

Virtual learning programs, where students may never physically see their teacher, especially need to take a multidimensional approach to gathering and analyzing data to understand student success (or lack of it), their overall perception of the learning experience and the programs' overall success.

As districts introduce and expand virtual learning programs, they will also need to adapt their systems and practices to build a culture focused on success for every student. That means not only thinking about what those systems are and how they work together but also applying an equity lens to the culture and practices surrounding virtual learning district-wide.

Technology infrastructure is an obvious place to start, because the student-educator relationship needs to be as smooth as possible. "Districts and educators are overwhelmed with a wide array of new digital tools," said Jean-Claude Brizard, CEO of Digital Promise, "and developing the systems and infrastructure that allow for the seamless integration of those tools is important for the quality of the virtual teaching and learning experience and in supporting equity." For example, schools may want to rely on just one learning management system to limit switching between platforms. Those that use multiple vendors should explore systems that integrate them into a seamless experience.

Equity is a factor for home access to broadband internet and devices. Most districts implemented a one-to-one approach for devices at the start of the pandemic, but districts must ensure that continues. What happens when a new student enrolls? What happens when a device breaks or when those devices are outdated? Access to broadband and wireless internet remains unevenly distributed across communities.

Acknowledging the Challenges (and Identifying Opportunities) With Early Learners

Virtual learning is a harder sell with young kids than secondary students: They often can't navigate asynchronous work. They need in-person help from an adult to manage technology. Their social and executive function skills are still developing, reducing their ability to engage online. But that doesn't mean it can't be done successfully.

Both authors of this report have elementary school-aged children who experienced extended periods of emergency remote learning during the pandemic. Because of that, the authors share the typical skepticism of most parents who lived through those less-than-positive experiences. Yet there are virtual programs that have successfully served elementary-aged students during and before the pandemic.

Michael Doerfler, who teaches third grade in the Nevada Learning Academy, Clark County School District's full-time online school, has seen it regularly: "When I'm in small groups and one-on-ones, they can focus and I can focus," he said. "We get more done. The growth I've seen is just staggering in some of them." He also pointed out that many of the students who thrive in virtual are the ones you may least expect: "There were some kids who struggled tremendously in the classroom with learning disabilities or behavior problems, and they just absolutely thrive in this virtual environment."

Good virtual learning programs in early years often don't involve the significant use of technology: Young learners can't and shouldn't sit in front of a computer all day. Another common characteristic of quality programs is that they require significant support from an in-person adult to facilitate learning. That can raise questions of equity for families where all adults work and don't have access to — or can't afford — a caregiver who can serve as a facilitator.

One key foundation for a successful virtual learning program for young learners is to properly engage parents and caregivers. "We're not just teaching students, we

are teaching the family . . . Particularly in K-2, the family learning guide serves as a 'teaching assistant' to provide immediate help to the student in navigating the platform and answering student questions as they're engaged with the lesson," said Sarika Simpson, Vice President of Instruction at Edmentum. "Teachers have had to get accustomed to having adults in their live lessons and intervention lessons every day and teaching them the platform and programs as well." In Gadsden, Wohlgemuth said leaders have "learned that if you get the little ones into a strong routine — and this is true whether it's in-person or at home with a learning guide — they can be successful."

Strong relationships are also critical for the success of virtual programs for young learners, but those strong relationships must also extend to the parents and caregivers who are serving in the role of teaching assistants. "A lot of times you're communicating with the adults just as much as the students, which is different than in brick-and-mortar schools," said Krista Lasky, an Edmentum elementary teacher with seven years of experience as a virtual instructor. "So good communication skills and flexibility are key" to being an effective online teacher in elementary grades.

Mr. Doerfler in Clark County explained that "everything takes practice in elementary school. In the first week of kindergarten, kids don't know how to stand in a line. So you can't just expect on day one for kids to know how to navigate a virtual environment either. You teach them the skills they need, day by day."

Those foundational pieces — including intentionality around routines and the training for educators and families — differentiate quality virtual learning programs for younger students from the emergency remote learning of 2020. They also help decouple these two distinct approaches when we consider what high-quality learning across all grades looks like.

Indeed, 22.5% of American households don't have access at home, a study found in August 2021.²⁸ While the digital divide has narrowed, between 9 to 12 million U.S. students may still “lack adequate internet access at home for remote learning.”²⁹ Indeed, broadband access and digital equity remain among the U.S. Department of Education's Office of Education Technology's top priorities.³⁰

Equity also comes into play through master scheduling and budgeting. While virtual programming creates opportunities for anytime, anywhere learning, it also requires a more flexible approach to scheduling. Similarly, virtual programs create the need to rethink roles and expand their view of the teaching team as they welcome outside teachers, experts and support staff.

Taking a conscious approach to building culture requires leadership and accountability as well.

22.5%

of American households don't have access to broadband or wireless internet at home

Like educators, families need training in virtual learning for their children to be successful, particularly in the elementary school years

Districts need to identify who's responsible for their virtual program's success. “The most successful district virtual programs are those that have a person who oversees the program, identifies opportunities to improve it, communicates with and supports parents and other stakeholders and ensures that students and educators have the resources they require to be successful,” said Holly Brzycki, supervisor of online learning at the Capital Area Online Learning Association (CAOLA), a consortium of online learning programs for over 150 local education agencies and intermediate units in Pennsylvania.

Families are also an integral part of school culture, and their role is heightened with virtual learning. Like educators, families need training in virtual learning for their children to be successful, particularly in the elementary school years. Resources need to be available in multiple languages and shouldn't presume that family members are digitally literate.

28 McNally, Catherine. “Nearly 1 in 4 Households Don't Have Internet—and a Quarter Million Still Use Dial-Up.” *Reviews.org*, August 17, 2021. <https://www.reviews.org/internet-service/how-many-us-households-are-without-internet-connection/>

29 Lieberman, Mark. “Most Students Now Have Home Internet Access. But What About the Ones Who Don't?” *EdWeek*, April 20, 2021. <https://www.edweek.org/technology/most-students-now-have-home-internet-access-but-what-about-the-ones-who-dont/2021/04>

30 U.S. Department of Education Office of Educational Technology. May 19, 2022. <https://tech.ed.gov/broadband/>

CONCLUSION



Why does Maya go to school? To learn, grow and thrive. She needs academics, of course, but humans also need nurturing relationships. The way Maya learns on any given day shouldn't dictate whether she's benefiting from mentoring, excellent teaching or peer learning. Nobody is pretending that we can or should replace in-person interaction. Indeed, the broader question isn't the role virtual learning plays in the future of education. It's what we want the future of education to look like. Technology is "not the

end-all, be-all, but it is an accelerant that can help us do something we haven't been able to do — meet every kid where they are and get them where they need to go," said Weaver of Digital Promise.

As we work to capitalize on the incredible technological innovations of our time, we can begin to consider that virtual learning may not be, as Friendship's Cherry put it, "the stepchild of school, but rather part of the DNA of who we are as educators and an education system."



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