Virtual Learning, Concrete Option
How virtual differs from remote learning during the pandemic

By Julie Young and Bill Donovan

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Executive Summary

After schools closed in March of 2020 due to the COVID-19 pandemic, students, families and teachers had to shift learning from in-class to online. But the switch to remote learning was hasty and disorganized in many school districts. Families struggled with the technology and coordinating schedules at home, while teachers tried to shift the in-person model to teaching through a computer.

The dissatisfaction caused many families to believe that the remote learning they were experiencing was what takes place in full-time virtual schools. In fact the two are much different.

Virtual schools offer courses designed for the online platform, based upon years of experience to determine what works. It takes 55 hours to develop 25 minutes of online training. Courses are developed by teams of designers expert in user interface, graphics, instruction and curriculum.

Virtual schools primarily employ teachers who are experienced online educators, with online teaching certificates and graduate degrees that specifically include online education.

A key differentiator between questionable and quality virtual programs is adherence to the National Standards for Quality Online Learning,[1] which includes standards for virtual teaching, programs, and courses. Any competent virtual program should adhere to these standards.

Introduction

In March of 2020, the COVID-19 pandemic drove families into their homes and students out of the classroom. But the virus did not displace the imperative of educating children. Rather, the method changed from in-school to at home, in-person to remote, on site to online. Unfortunately, it did not go well for everyone. There was widespread criticism of remote learning during the spring of 2020 and throughout the 2020-2021 school year. Parents and educators saw students struggle, their test results decline and their attendance fall.

In the course of discussing out-of-classroom learning, the terms remote and virtual were often used as if they were the same. In fact, they are not. *Virtual* learning is much different from what was often a hasty attempt to *remotely* push classroom instruction through a computer screen. Remote learning is a broad description of what was happening. Online is the *platform* that the instruction was happening upon. "Virtual" is a specific form of education that takes place through the online platform. Most of the more than 330,000 students who attend one of the nearly 500 full-time virtual schools in the U.S.[2] did not experience the same disruptions as in-class students. Obviously, they weren't forced from their brick-and-mortar school because that's not what they attend.

This paper is not an argument to replace traditional learning with virtual learning. Rather it's a clarification of the misperception that has resulted from the haphazard use of the terms virtual and remote learning during the pandemic. It's also a justification as to why virtual learning should be among the *options* that parents have when deciding on the education of their children.

Unfortunately, due to the Delta and Omicron variants, alternatives to in-classroom learning remain in demand today as they were during the past school year. When classes ended last spring parents, teachers and students looked forward to having students back in the classroom in the fall, perhaps with masks, but definitely offline and in the building. But with infection rates up and students under age 12 not yet vaccinated, there's renewed stress about students getting sick or at minimum struggling again to learn online. By early September there were reports of at least 1,000 schools across 35 states closed for in-person learning due to multiple positive cases of COVID-19[3] including Pennsylvania,[4] California[5] and Texas,[6] where two districts closed all of its schools after two teachers died from COVID-19. Most of those schools temporarily moved to remote learning. Others temporarily closed with no instruction. And a small number delayed the start of school or shifted into hybrid learning.

Now parents across the country are calling for an alternative to in-school learning that is less chaotic and more effective than what was used in many schools last year. After the Centers for Disease Control (CDC) updated its health guidance to acknowledge the threat of the Delta variant on July 27, only 43 percent of public school parents and guardians said they wanted their children in a classroom full time this year, according to a survey funded by the CDC. That was down from 58 percent who said they wanted in-person instruction before July 27. The survey polled 1,448 parents and guardians.[7]

Those concerns continued for many parents as the school year began. In September, parents with the Massachusetts Education Justice Alliance, a coalition focused on public education, held a Zoom meeting to discuss their concerns about medically at-risk students. Though wider availability of vaccines for children has calmed some parents, other still reject a decision by state officials to not allow districts the option of remote learning.[8]

In Boston, many families were alarmed before the CDC advisory. According to a survey of parents in the Boston Public Schools (BPS) district in May, more than 1,700 parents out of 3,200 who responded said they were either "very" or "somewhat" likely to enroll their children in a full-time virtual school.[9]

The group, Massachusetts Parents for Remote Learning Options, posted an online petition asking the Massachusetts Department of Elementary and Secondary Education to give BPS parents the option for virtual schooling until a vaccine is widely available. If that wasn't possible, then the petition requests that their children's seats in their schools be held as they leave the schools to seek safer options outside of the BPS, such as virtual schools. As of late September, the petition had more than 800 signatures.[10]

Virtual learning is not necessarily the obvious alternative for those parents, nor for other groups that have organized in Maine, New York and elsewhere in the U.S.

But the pandemic has raised the interest of those families who have been curious about virtual learning in the past. At ASU Prep Digital, a Pre-K to 12 virtual school started by Arizona State University, full-time enrollment in FY '19 was 800 students, in FY '20 it jumped to 4,000, a 700 percent increase. Enrollment today ranges between 3,700 and 3,800 students.

It would be short-sighted to assume that education in the U.S. and around the world is going to simply return to its pre-pandemic status. The system was stretched to its seams. Now that we've received this COVID wakeup call, it would be wise to build the infrastructure and support system needed to avoid the frustration and drop in learning that occurred during the shutdown.

Virtual Learning

Since March of 2020, when the pandemic forced schools to close, the terms remote, online and virtual have frequently been used interchangeably- and incorrectly - to describe how students were receiving their education while at home. *Remote learning* is an umbrella term. *Online* is where the instruction was happening and *virtual* describes a specific form of education taking place upon the online platform.

Particularly important to virtual learning professionals is distinguishing what they do from what took place in many public schools when they closed. The remote learning that was rushed into place is not an accurate example of technology-supported learning.

Virtual learning is a "designed" program. It is a system created specifically for the online environment. When schools shut down, educators faced an emergency requiring them to rapidly shift what they were doing in the classroom and replicate it on an online platform. There was little design involved.

Conversely, there is considerable design that goes into a virtual school program. Through the years, those who've worked in the online environment have learned what works online and what doesn't and how they have to adjust their instructional strategy. The amount of thinking and number of hours that go into what should go into every screen in an online program is immense. On average it takes 55 hours to develop 25 minutes of online training.[11]

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It also requires a significant level of expertise. The development team includes user interface designers, graphic designers, instructional or learning experience designers, and curriculum experts. It includes people who have mastery in designing the curriculum according to whatever the objectives are for the students in that online environment.

Imagine administrators of a virtual school want to create a new social studies course for their students. An instructional designer is required to understand the objectives of the course and the pedagogical approach at the school. That person would sit down with a host of stakeholders ranging from the school administrators to the social studies teachers.

At ASU Prep Digital everything is built in a "discovery learning" format. It's a teaching approach in which students aren't always given instruction up front. The content is designed to give students opportunity to wrestle with the material at first, bringing the students' prior knowledge and creativity to bear, while providing well-placed guidance and corrective feedback to support these early no-risk attempts to understand the material. Gradually, students find their way to the objective of the lesson.

Of course, like any school, it's critical to have skilled teachers. Without teachers who know how to teach in an online environment, the program design is useless. Virtual schools primarily employ teachers who are experienced online educators. Many have online teaching certificates and graduate degrees that specifically include online education. Like other schools, virtual schools also focus their ongoing professional development to the way they work, which means around online teaching and learning practices.

Virtual school teachers are trained to monitor progress in a virtual environment. In a classroom, teachers can walk around to a student's desk and chat with them about how they're doing. In a virtual school, teachers must rely on the data tools. They receive data through the learning management system or through the course they use. They understand how to use that data to recognize and intervene when a student is struggling.

Too often during the pandemic, classroom teachers who were asked to jump into remote instruction understandably struggled in their execution and that filtered through to the students, according to a survey of teachers and principals by the RAND Corp. last spring.

"Only 15 percent of teachers who have been fully remote for most of the year reported covering all or most of the curriculum they would cover in a typical year, compared to more than one-third of in-person teachers," the report stated. "Of teachers who delivered mostly remote instruction this year, two in ten reported still having an inadequate internet connection even a year into the pandemic.

"School principals reported similar shortfalls," the report continued. "Half of remote schools shortened the school day. Elementary students who spent most of the year in a fully remote school year were receiving 100 fewer minutes of instruction per week in English language arts than their peers who attended school in person, as well as less instructional time in math and science."[12]

If the experience of teaching remotely during the pandemic created bad feelings among teachers about the online learning environment, they cannot be faulted, even by professionals in the online learning community. The same can be said for disillusioned parents and students who were frustrated by what they were forced into.

Why virtual school graduation rates are low

According to the National Education Policy Center at the University of Colorado Boulder, the graduation rate at virtual schools is 54.6 percent and 64.3 percent in blended schools in the 2019-2020 school year, well below the overall national graduation rate of 85 percent.[13] Even in a program specifically designed for virtual learning, execution of the program, an unswerving commitment to quality and standards, and a staunch focus on student support are critical success factors. A key differentiator between questionable and quality virtual programs is adherence to the National Standards for Quality Online Learning,[14] which includes standards for virtual teaching, programs, and courses. At a minimum, any virtual program worth its salt should align

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to these standards. Programs that do so are more likely to be in line with national student outcome data. For example, Florida Virtual School, whose leadership was instrumental in the development of the national standards in the early 2000s, *saw a 95 percent graduation rate in 2019.*

North Carolina Virtual Public School, which provides supplementary courses statewide, served more than 31,000 students in 51,000 enrollments with an average 88 percent pass rate. Enrollments included more than 12,000 in honors and Advanced Placement courses, 21,000 in general education, and almost 18,000 in occupational courses of study.

ASU Prep Digital's graduation rate was 85.15 percent in 2019. In addition, 77 percent of students completed the FAFSA, a key indicator for post-secondary enrollment. Eighty-eight percent of graduates were enrolled in higher education, nine-percent at two-year institutions, and 79 percent at four-year institutions, while almost half of ASU Prep Digital's graduates finished high school with college credits under their belts.

Quality in virtual schools is all over the map, just as it is in brick and mortar schools. Besides asking about how the program aligns to the National Standards for Quality, parents should ask about expectations around teacher communication, accessibility, and feedback turn-around times. Students should be able to access their teachers, in other words, and it shouldn't be a hassle to do so. There should be evidence that the program has multiple layers of support in place to ensure student success. For instance, ASU Prep Digital has a team of Learning Success Coaches, whose role, as the title suggests, is to help students become proactive learners who know how to set goals and track their own success towards them. A quality virtual program should address the whole child just as vigorously as a quality site-based program.

What we learned about online education during the pandemic

It's more than teachers on Zoom.

Certainly, most teachers deserve praise for their rapid response to the pandemic shutdown. But in numerous online surveys conducted since March of 2020, teachers have consistently indicated they were not prepared to teach online and that a significant percentage of their students struggled and some did not log in to complete assignments.[15]

The widespread frustration could have been minimized.

The rapid jump from the classroom to online learning was a bracing baptism for many educators and families. But almost every state has a state virtual school or several virtual schools that have been designed to do this work, with many being in operation for a decade or more. The technology and content solutions have been available but underutilized, often due to an unwillingness to rethink the systems, policies, and processes that are needed to integrate digital solutions as a seamless part of our educational offering. It's simply easier to do what we've always done.

K-12 online learning started in the mid-1990s. When classrooms were closed in March of 2020, at least two-percent of U.S. students and many more globally had already been engaged in online instruction from K-12 online or virtual schools.[16] With the pandemic came a massive effort to equip our entire student population with hardware, content, and internet access. Heroic measures resulted in a huge swatch of our student population being ready, from a systems standpoint, to engage in virtual learning. Likewise, teacher training rose significantly during the pandemic, some admittedly more successful than others. Yet, in true moonshot fashion, the nation equipped its students and teachers—at least at a foundational level—with a whole new level of flexible educational delivery solutions.

While none can deny that for many families and teachers, the experience was a bust, for the first time, many discovered aspects of virtual learning that really worked for them, yet depending on where they live, they may actually be denied the opportunity to continue. Indeed, 19 states require in-person instruction[17], leaving families who may now prefer a virtual option without choices.

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We learned more about racial differences.

In the spring of 2021 MassINC Polling Group, a public opinion research firm, conducted a survey of K–12 Massachusetts parents about how federal recovery money should be spent. About 70 percent of parents wanted their child to learn in class when schools reopened in the fall. Among Black parents, however, only 54 percent preferred full in-person learning. Another 29 percent preferred hybrid learning and 12 percent favored remote.[18]

"Parents of color have been consistently less enthusiastic about in-person school," said Steve Koczela, president of the MassINC Polling Group.[19]

Nationally the racial divide between where and in what way children were learning in the spring of 2021 was also striking. According to the federal Department of Education, slightly more than half of Latino and Black eighth graders were enrolled in fully remote programs, compared to 24 percent of white eighth graders.[20]

Interest in remote instruction is waning, but capacity for virtual learning is growing.

The R and C orp s tudy c oncluded t hat t he l evel o f p arental d emand f or r emote i nstruction appears to be diminishing. Though several spring 2021 polls reported that 20 to 30 percent of parents desired remote instruction for their children permanently, RAND's May 2021 survey of more than 2,000 parents found that, overall, just five percent were not going to send children for in-person instruction in the fall. "Further, their main reasons for choosing remote schooling are concerns about COVID-19, so that preference may fade somewhat as the pandemic recedes."[21]

In the meantime, there are concrete examples of states and districts continuing to expand their virtual learning capacity to accommodate further enrollment growth.

- In the fall of 2021 Utah's Jordan School District expanded its virtual learning program by opening the Jordan Virtual Learning Academy. The new school anticipates serving at least 1,200 of the district's current 3,000 virtual students through virtual core curriculum courses including math, reading and the sciences.[22]
- After enrollment reached 15,000 during the 2020-2021 school year, California Virtual Academies hired more than 100 teachers to help manage that growth. School officials report that the enrollment surge was the largest it had seen since its founding nearly 20 years ago.[23]
- NC Virtual, a tuition-free supplemental online school in North Carolina established in 2007, averaged about 50,000 students enrolled in full-course credit classes during the past several years. In the current school year, the school expects that number will leap to 60,000 students.[24]
- In Florida, Miami-Dade Online students will have less live teaching and more independence than last year, while the Miami-Dade Virtual Academy will be online with a live teacher for larger portions of the school day. Both will be independent schools with their own staff.[25]

Summary

Professionals in virtual education are defending virtual learning by highlighting its differences with the emergency environment that students, teachers and parents found themselves in in March of 2020. The "designed program" that is fundamental to virtual learning is more orderly and certainly requires more time and thought than the pandemic afforded brick-and-mortar school leaders during the height of the crisis.

A myriad of problems popped up during the transition from classroom to working at home. As the editors of the National Education Policy Center's 2021 annual report wrote "Hackers disrupted district connections, held student personal data for ransom, and 'Zoom bombed' classes. Teachers, students, and parents struggled—with mixed success—to adjust to the virtual education technologies. Parents, when turned to for needed support, found that they often lacked the time, resources, and knowledge required to meaningfully engage in the technological programming offered. Many students and parents were sidelined altogether because they lack access to broadband, computers, and other digital necessities."[26]

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The "designed program" that is fundamental to virtual learning is more orderly and certainly requires more time and thought than the pandemic afforded brick-and-mortar school leaders during the height of the crisis.

As schools reopened in the fall of 2021, fears of the Delta variant had many parents concerned about sending their children back to schools. Amid political disputes involving mask mandates, vaccines and requirements as students attend classes, parent groups around the country were calling for a remote learning option. Only this time, after seeing their children's test scores and attendance slump, they wanted a remote option that was less chaotic and more effective. Many school districts, even as they opened their doors for classroom sessions, were making remote options available.

Virtual schools around the country are seeing their enrollment levels rise. The option is not suitable for all students. But it meets parental desires of improved safety and less turmoil merely by being out of the classroom and operating on an existing platform.

More importantly, support for virtual learning options supports the belief that all students learn differently, which, if true, means we don't need fewer options. We need more. Harnessing technology to innovate around new learning models is not a luxurious foray into creativity. It is smart preparation and foresight, not only to ensure that our schools are ready with multiple avenues for learning no matter what the next crisis is, but also to honestly acknowledge the real diverse needs of our students and to meet those needs head on with creative solutions that may or may not look like *any* of our current models. Indeed, we are seeing a rise in numerous new models, such as micro-schools, digital academic camps, and pandemic pods.

The pandemic has raised the profile of virtual learning to where it take its place alongside homeschooling and charter schools as options to public school education. As a result, we are on the threshold of a new era of thinking around what "school" will look like in the future.

Recommendations

- **Build out the digital learning infrastructure.** When the pandemic forced students and teachers home, schools would not have struggled to pivot if a strong infrastructure and support system was in place. COVID-19 put a spotlight on a huge gap that exists in technology and connectivity. A Pew Research Center survey in 2019 showed that approximately 63 percent of rural adults have a home broadband connection compared to 75 percent of urban and 79 percent of suburban adults. Nearly 40 percent of Americans living in rural areas lack high-speed home internet, while 14 percent do not have a computer at all.[27]
- **Personalize education.** Face-to-face learning is the preferred option in K-12 education. But there is value in leveraging technology to create other options. Tools are available to identify exactly where each student is struggling and then to create content to fill those gaps and support growth in a traditional school or in an online adaptive technology-based program. Educators need to move away from the one-size-fits-all approach, and digital learning can help remedy this.
- **Install "E-Learning Days."** A growing initiative, which has been present in other countries like Japan for over 15 years and should be encouraged, is schools building in e-learning days to their regular school schedule. These online school days or weeks give districts the opportunity to practice how they'd operate online, when a crisis or event would prevent an ordinary school day. Whether it's serving home-bound students, managing school closings due to weather or other circumstances such as fires, or continuing learning on teacher professional development days, e-learning days can help to keep the continuity of learning going.
- **Equip teachers and educational leaders to deliver digital models and digitally supported models.** Teaching and learning online require different skillsets for instructors, support staff, administrators, and for students and their families. Stakeholders need to understand how a digital environment will change their roles and responsibilities. Besides professional development dedicated to understanding these roles, online orientations for students and parents are critical to helping them successfully shift from traditional to digital learning ecosystems.

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- **Reconsider Progress Monitoring**. In a traditional classroom, teachers deliver instruction in a variety of ways, and "circling the room," is a common way to discern whether or not students are understanding the instruction. In digital environments, teachers need to know how to monitor progress through data, through discussion-based assessments, through live lessons, and through project-based learning. Teachers need training to understand how to use all available feedback mechanisms to inform next steps.
- **Rethink Roles**: Virtual providers can offer flexible models that fill instructional gaps or even provide a coaching element to partner schools. For example, ASU Prep Digital has several school partnerships in which the digital program provides the instruction to students at the local school. Students go to a learning lab as part of their daily schedule where a trained facilitator works with them to gage progress and troubleshoot problems. When possible, the facilitator will also coach them through time management, goals setting, and successful student behaviors. Meanwhile an ASU Prep Digital teacher provides academic instruction and coaching. These types of partnerships are often forged due to a need at the local school such as covering a teacher vacancy or building in courses otherwise unavailable in their programs.

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About the Authors

Julie Young is ASU Vice President of Education Outreach and Student Services and Managing Director of ASU Prep Academy and ASU Prep Digital. She is a visionary CEO, educator, and entrepreneur passionate about leveraging technology and building innovative school models that put students at the center of every decision. Under Julie's leadership over the last four years, ASU Preparatory Academy has grown exponentially in both enrollment and global impact, currently serving more than 7,500 full-time K–12 students and over 400,000 student enrollments in school partnerships around the U.S. This unique program offers students an accelerated path toward college admission and careers of the future with the chance to earn concurrent high school and university credit, shortening time and cost to degree. Julie was the founding President and CEO of Florida Virtual School (FLVS ®), the world's first virtual statewide school district that began as a small grant initiative and grew to become the largest public K-12 program in the U.S., serving more than 2 million students in 50 states and 68 countries.

William Donovan is a former staff writer with The Providence Journal in Rhode Island where he wrote about business and government. He has taught business journalism in the graduate programs at Boston University and Northeastern University. He received his undergraduate degree from Boston College and his master's degree in journalism from American University in Washington, D.C.

Mission

Pioneer Institute develops and communicates dynamic ideas that advance prosperity and a vibrant civic life in Massachusetts and beyond.

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Success for Pioneer is when the citizens of our state and nation prosper and our society thrives because we enjoy world-class options in education, healthcare, transportation and economic opportunity, and when our government is limited, accountable and transparent.

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Pioneer believes that America is at its best when our citizenry is well-educated, committed to liberty, personal responsibility, and free enterprise, and both willing and able to test their beliefs based on facts and the free exchange of ideas.