

## VIEWPOINT

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## K-12 Virtual Schooling, COVID-19, and Student Success

**The coronavirus disease 2019** (COVID-19) pandemic has significantly affected K-12 education in 2020.<sup>1</sup> To protect students and staff, as well as to flatten the infection curve, parents, teachers, and policy makers endorsed and implemented a modified version of homeschooling in the spring in the US and across the globe. Teachers used some form of paper mailings and electronic technology (eg, video conferencing, emailing) to deliver content to students, while parents assumed a coteaching responsibility. Most parents, schools, and teachers were unprepared and untrained to handle the complexities inherent to educating as well as the demands of the technology needed to support these efforts. Although teachers deserve high praise for their rapid response, the educational outcomes were unsatisfying, families were burdened, and most are hesitant to repeat the same format. As government officials attempt to plan for the fall, the American Academy of Pediatrics released a statement supporting the return to traditional school as soon as possible to preserve education and socialization while limiting the exacerbation of existing educational disparities for high-risk populations.<sup>2</sup>

This unprecedented spring transition was an introduction to K-12 online learning for many educators and families. However, K-12 online learning started in the mid-1990s under the broad label of *K-12 online and blended instruction* (blended refers to the use of both face-to-face and online formats). While more than a billion children worldwide newly experienced this pandemic-related abrupt transition to online education, at least 2% of US students and many more globally had already been participating in online instruction from K-12 online or virtual schools.<sup>3</sup> As policy makers, health care professionals, and parents prepare for the fall semester and as public and private schools grapple with how to make that possible, a better understanding of K-12 virtual learning options and outcomes may facilitate those difficult decisions.

Virtual schooling is the delivery of instruction through technology to students physically separated from their teachers. Formal virtual schools exist nationwide at all levels from kindergarten through 12th grade for both general and special education. At the elementary school level, online learning typically requires parental involvement and facilitation. Students at the middle school and high school levels often independently communicate via email, text, telephone, or video for group and individualized learning. Virtual schooling classes are frequently asynchronous, where students and teachers do not have to be online at the same time, allowing for learning anytime and any place.<sup>4</sup> Unlike the rapid transfer of face-to-face curriculum into an online format in spring 2020, virtual schools use curriculum designed specifically for online instruction. These schools

mostly employ teachers who are experienced online educators and often have online teaching certificates and graduate degrees that specifically include online education. Virtual schools also focus their ongoing professional development around online teaching and learning practices.<sup>5</sup>

Just like the myriad options that are available for face-to-face schooling in the US, virtual schooling exists in a complex landscape of for-profit, charter, and public options. For example, in Florida, school districts have partnered with Florida Virtual School, a state-funded public entity. Florida Virtual School provides counties with curricula and, in some cases, both curriculum and instruction for K-12 online classes. Students can take 1 or all Florida Virtual School classes channeled through their local public school. This partnership, which includes highly trained online instructors and high-quality curriculum specifically adapted for online delivery, produces similar or better performance when compared with face-to-face high school students on required state end-of-course examinations.<sup>6</sup> However, not all virtual schools are created or maintained equally. Parents need to seek reviews and ask for educational outcomes from each virtual school system to assess the quality of the provided education.

Importantly, K-12 virtual schooling is not suited for all students or all families. Individual students need to be motivated, organized, and supported. Differences in their environment, meaning their access to instructional support as well as their internet access, can cause significant variations in student success. Finally, while research is scant, 1 review indicates that specific teaching strategies used in online and blended environments can have a dramatically positive effect on outcomes.<sup>7</sup>

One of the more recent and promising advantages of virtual K-12 schooling is to meet the educational needs of children with special health care needs. Research supports that online learning can be a more suitable solution than attending a face-to-face school, especially when a student may experience frequent absences due to illness and/or frequent visits for chronic health management. Preliminary work by these authors has found that children who qualified for hospital homebound programs and chose to enroll in a K-12 course performed at least as well, or potentially better, than their nonhospital homebound peers. Moreover, children with special health care needs felt more in control of their education when participating in online learning.<sup>8</sup>

Many schools are still considering online or blended instruction as a necessary alternative or hybrid as this pandemic evolves. Also, many families may be considering whether some or all of their child's current or future education could take place online. As such, parents should evaluate the unique strengths and needs of their children by considering the following questions:

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1. Can their child maintain a study schedule and complete assignments with limited supervision?
2. Would their child be able to ask for help and effectively communicate with a teacher via telephone, text, email, or video?
3. Does their child have an intrinsic drive to learn skills, acquire knowledge, and complete assignments?
4. Does their child possess foundational reading, writing, math, and computer literacy skills?
5. What support does the school provide for children with special needs?
6. What expectations does the school have for parents/caregivers?
7. What technology is necessary for participation? Who is responsible for providing it?
8. How will the virtual school facilitate communication about their child's unique needs?

Parents should also learn more about the virtual school options available to them. They should seek to understand the following:

1. How will student information be shared with their local school district?
2. Is the virtual school accredited?
3. How does the virtual school comply with state standards for K-12 educators (eg, licensure)?
4. Are Universal Design for Learning<sup>9</sup> standards incorporated into instructional materials?
5. What support does the school provide for children with special needs?

The pandemic has encouraged many parents to explore educational alternatives, particularly for students who may have health concerns such as those with respiratory disease or who are immunocompromised. With social distancing creating obstacles for traditional education, K-12 online learning may become more mainstream. For more information, consider the Michigan Virtual Learning Research Institute's parent guide to online learning<sup>10</sup> and the Universal Design for Learning.<sup>9</sup> Future studies of the intersection of educational and health outcomes can clarify the effect of education on health and health on education. The COVID-19 pandemic offers a unique challenge for educators, policy makers, and health care professionals to partner with parents to make the best local and individual decisions for children.

#### ARTICLE INFORMATION

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