By Megan O'Reilly Palevich and Dr. Ellen Honeck

Schools are leveraging technology to enhance learning in the classroom at an exponential rate. According to *Education Week,* public schools are spending nearly $3 billion per year on digital content and on average provide one computer for every five students.[1] The typical classroom experience for many students now includes the use of online textbooks, assignments, homework and grading systems, tests, and use of the internet both inside and outside of school to complete assignments.

However, computers and the internet have also created opportunities for gifted students where learning is no longer confined to the classroom. An increasing number of students are participating in distance education programs, where they learn at any time, across geographic boundaries, and at their own pace. Distance learning can be a good option for gifted students who: attend schools with few advanced courses and gifted programs, cannot obtain early access to advanced courses, want to take additional advanced courses but cannot fit them into their school schedules, are not thriving in a typical school setting, or are home-schooled.[2]

Two types of distance learning options—online and blended—are becoming viable solutions for gifted students who require acceleration, flexible

schedules, or an alternative to the traditional school setting. These formal, curriculum-based programs meet standards and learning objectives, may or may not include a remote teacher, and either fully or partially replace the bricks-and-mortar classroom experience. It's important to note that online and blended learning programs are dependent on technology; they are much different than in-classroom experiences complemented by technology.[3] Technology used to watch a video, access a text book, or provide drill or skill practice is not considered blended or online learning.

There are multiple definitions for both blended and online learning, and nearly everyone you ask has a different opinion. Online learning is described by most experts as access to learning experiences via the use of some technology. With online learning, students participate in a formal course or program delivered remotely via the internet, where the student has control over when and where they learn, and how fast they progress through the material.

More and more online learning K–12 options are available to gifted learners in different flavors. These include:

- Full-time, private gifted online schools (e.g., Laurel Springs School)
- Full-time, public online schools in select states (e.g., Connections Academy)
- Online personalized learning programs in select curriculum areas, such as math, science, and English (e.g., Giftedandtalented.com)
- Session-based honors, Advanced Placement, or enrichment courses through gifted and talented centers (e.g., Northwestern University Center for Talent Development's Gifted Learning Links or Johns Hopkins Center for Talented Youth)

Blended learning options are also becoming more popular, often through a student's home school district. The Clayton Christensen Institute defines *blended learning* as a formal education program in which a student learns:[4]

- at least in part through online learning, with some element of student control over time, place, path, and/or pace;
- at least in part in a supervised brick-and-mortar location away from home; and
- with connected modalities along his or her learning path within a course or subject to provide an integrated learning experience.

With blended learning, students learn in part through online learning and in part through direct classroom instruction. They

Glossary

Blended learning. A formal education program in which a student learns in part through online delivery of content and instruction (with some element of student control over time, place, path, and/or pace) and in part at a supervised brick-and-mortar location away from home.

Distance education. A form of education where a student's normal place of learning is separate from the teacher.

Distance learning. The umbrella term used to describe different forms of remote learning through the use of technology.

E-learning. Content and instructional methods delivered via applications, programs, websites, CD-ROM, the internet or intranet, audio- and videotape, satellite broadcast, and interactive TV.

Flipped classroom. A learner is asked to watch a video for homework or to participate in an online learning exercise before coming to class. In most cases, the knowledge that is learned online is applied via hands-on practice and support during the regular classroom teaching time.

Learning management system (LMS). Used in blended and online learning as the method of content delivery. The content is interactive, engaging, and allows teachers to personalize learning through specific learning objects. An interactive gradebook is tied to the content in the learning management system to allow teachers to give feedback to students and to allow parents immediate visibility into their child's learning.

Modalities. How students use their senses in the learning process: *visual* (seeing), *auditory* (hearing), *kinesthetic* (moving), and *tactile* (touching). When more senses or modalities are activated, more learning takes place.

Online learning. Formal course or program that is delivered via technology, where the student has control over the time, pace, and space.

Personalized learning. Curriculum tailored to the learning abilities, needs, and interests of the student. Everyone learns at different paces, has different aptitudes, and enters classes with different experiences and background knowledge.

have some control over where and when the work is done as well as the path and pace of learning. Home and school learning are connected to provide a seamless experience.[5] This method delivers content along with voice and choice for the student within a learning management system (software used to deliver, track, and report).

The majority of blended-learning programs resemble one of four models: rotation, flex, à la carte, or enriched virtual.[6]

- **Rotation.** A course or subject in which students rotate on a fixed schedule or at the teacher's discretion between learning modalities, at least one of which is online learning. Other modalities might include activities such as small-group or full-class instruction, group projects, individual tutoring, and pencil-and-paper assignments. The students learn mostly on the brick-and-mortar campus, except for any homework assignments. Gifted learners benefit from an instructional pace that responds to their individual learning needs.
- **Flex.** A course or subject in which online learning is the backbone of student learning, even if it directs students to offline activities at times. Students move on an individually customized, fluid schedule among learning modalities. The teacher of record is on-site, and students learn mostly on the brick-and-mortar campus, except for any homework assignments. The teacher of record or other adults provide face-to-face support on a flexible and adaptive as-needed basis through activities such as small-group instruction, group projects, and individual tutoring. With the flex model, students have greater independence within their educational experiences.
- **Self-blended or À la carte.** A course that a student takes entirely online to accompany other experiences the student is having at a brick-and-mortar school or learning center. The teacher of record for the à la carte course is the online teacher. Students may take the à la carte course either on the brick-and-mortar campus or online. Students take some courses à la carte and others face-to-face at a brick-and-mortar campus. This approach offers students the independence of online learning combined with the structure they may need in their bricks-and-mortar school setting.
- **Enriched virtual.** A course or subject in which students have required face-to-face learning sessions with their teacher of record and then are free to complete their remaining coursework remote from the face-to-face teacher. The same person generally serves as both the online and face-to-face teacher. Students seldom meet face-to-face with their teachers every weekday. It differs from a fully online course because face-to-face learning sessions are more than optional office hours or social events; they are required.

Q. Can I just use online math videos as an online course?

A. Online math videos are excellent for supporting students who are curious about math concepts or need help with a problem they are trying to work out. Math videos are not a curriculum and are not accredited to grant credit to advance a child to the next math level.

What are the Benefits?

Online and blended learning have been around for more than 20 years, but significant research on the impact in the classroom has surfaced predominantly in the past 5–10 years. In a recent study at Arizona State University, researchers found that blended learning significantly outperforms strictly face-to-face classroom instruction.[7] Researchers also found that the most effective online learning platforms are those that adapt to students who might need to move faster than the rest of the class.

A 2010 study conducted by Northwestern University specifically focused on benefits of online learning for gifted students. The findings concluded that there is great potential for gifted education to utilize online formats to:[8]

- Access advanced level content and courses

- Work at own pace and own level
- Feel more in control of the learning process
- Provide self-directed and independent learning
- Create a mentor/mentee type relationship between the teacher and student

The study concluded by stating that an online format is a way to expand the reach of gifted programming to students for whom regular brick-and-mortar settings are a less than ideal "fit" for their particular needs.

Online and blended models allow for subject-specific acceleration while keeping the child in their developmentally appropriate grade or for those gifted in some subject areas by matching students with the right content at the right time. By extending content online, the student is able to work at their own level without physically moving to a different classroom or building or being in classes not appropriate for their giftedness.

Q. How can I try online learning?

A. The best way to try online learning is to have your child take one course. This can take place during the school year or over the summer. Many schools or enrichment programs offer electives that may not be offered at her brick-and-mortar school.

Selecting a Blended or Online Option

As a parent, choosing an online or blended program can be daunting. If your school is not meeting the needs of your gifted child, be prepared to ask administrators to supplant the curriculum with online or blended coursework. In choosing a program, parents should look for the following:

- Accreditation
- Flexible schedule
- Quality curriculum
- Approved courses (College Board, University of California A-G, NCAA)
- Qualified professionals
- Proven test scores and track record
- Supportive staff and school counselors

It's important to ensure that administrators will recognize the online coursework and know how it will affect transcripts and high school requirements. Keep in mind that it is at the school's discretion to approve providers for your child's education.

Many parents choose to enroll their child full-time in an online or blended program. Motivated students quickly adapt to the new model of learning and experience control over their own learning for the first time. But, what about the social-emotional impact of online learning?

When the constraints of being in a building for 8 hours a day are removed, students often have more time to focus on outside activities and personal interests where they can form relationships

with like-minded peers or those with similar interests. Also, many online schools offer opportunities for virtual socialization in a wider global community. If you select this as an option, make sure your child takes advantage of any face-to-face or virtual socialization opportunities. This blend of socialization prepares students for all of the types of interactions they will experience in higher education and beyond.

Whether your child will be taking one online class to supplant coursework in a brick-and-mortar school, or is making the leap to full-time enrollment in an online school, providing this personalized learning opportunity empowers students to be independent and to advocate for their own learning. Blended and online learning opens up time and space in an educational environment that has traditionally spanned 8 hours a day, 180 days a year.

Four walls no longer determine a student's educational path. Leveraging new models for learning provides transparency in education for parents and entrusts students to be the architects of their own learning.

Authors' Note

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Endnotes

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[7] Piehler, C. (n.d.). *3 ways blended learning improves student outcomes* [blog]. Fair Oaks, CA: The Learning Counsel. http://thelearningcounsel.com

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Resources

Websites

Clayton Christensen Institute,
www.christenseninstitute.org/blended-learning

NMC Horizon Project Report (2015),
http://cdn.nmc.org/

iNacol—Quality Standards for Blended and Online Teaching,
www.inacol.org/resource/inacol-national-standards-for-quality-online-courses-v2/

Keeping Pace with K–12 Digital Learning (2015),
www.kpk12.com

Books

Christensen, C., Horn, M. B., & Johnson, C. W. (2016). *Disrupting class, expanded edition: How disruptive innovation will change the way the world learns.* New York, NY: McGraw-Hill.

Horn, M. B., & Staker, H. (2015). *Blended: Using disruptive innovation to improve schools.* San Francisco, CA: Jossey-Bass.