

Building a Blended Learning Program

Combining face-to-face and virtual instruction addresses all learners in the pursuit of 21st century skills.

BY SUSAN MCLESTER

ONLINE LEARNING HAS SEEN A STEEP upward growth trajectory over the past decade. In the 2011 report "The Rise of K-12 Blended Learning," authors Michael Horn and Heather Staker of the Innosight Institute say the number of students taking online courses has leapt from 45,000 in 2000 to more than 3 million today, and that by 2019, 50 percent of high school courses will be delivered online. "Fast Facts about Online Learning," a 2010 report by the International Association for K-12 Online Learning (iNACOL), says 75 percent of school districts nationwide have one or more students enrolled in an online or blended learning course, that 27 states have full-time, statewide online schools, and that the online learning market currently represents about \$507 million, with 30 percent annual growth.

For organizations such as iNACOL and the U.S. Distance Learning Association (USDLA), online learning often serves as an umbrella term that includes the subcategory of blended learning, which might also be referred to as hybrid learning, and comprises some combination of online and face-to-face time. Spurred in part



by a 2009 U.S. Department of Education study, "Evaluation of Evidence-Based Practices in Online Learning," which found that students learn better in a blended model than they do in either fully online or traditional "brick and mortar" models, blended learning is increasingly becoming the approach of choice in online learning.

Experts like Horn, USDLA CEO John Flores and iNACOL CEO Susan Patrick say that blended learning offers the best of



At the Minnesota New Country School in Henderson, where blended learning takes place, lessons are centered around individual students. Advisers create individualized learning plans and adaptive computer software helps students meet those objectives. Students progress at their own pace, according to what interests them or what is most in need of review.

both worlds, allowing schools to integrate 21st-century instructional models such as time and space flexibility, self-pacing, digital content and increased personalization into an adult-supported environment. For most students, says Horn, the blended model is also a better fit than a fully online environment because it fulfills the custodial and social functions beyond learning that brick-and-mortar schools traditionally have performed. "Schools keep children safe and provide adult supervision in a day and age when

most parents work. And the kids also want to be around their friends and have fun," he says.

The ideal blended learning experience, says Patrick, places the student at the center of the picture, with an individualized instructional map aligned to core curriculum standards. Students progress through a varied range of activities that might include everything from taking virtual field trips to museums like the Smithsonian Institution or the NASA-Ames Research Center, reading paper- ►

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based books, learning from video games, and taking part in inquiry-based online explorations. And they may have up to five different online and face-to-face teachers. "Demonstrating knowledge [is] more like earning a merit badge," Patrick says. An ongoing challenge of any blended learning model is to maintain a high level of quality, she adds. "We need to guard diligently against people who just scan textbooks for their online course content."

Still new, blended learning models remain works in progress for most districts, says Horn. In "The Rise of K-12 Blended Learning," he breaks down blended learning into six models.

- In the Face-to-Face Driver, an in-person teacher delivers most of the curriculum but integrates online learning in individual student cases for remediation or supplemental support as needed. Often this involves students working on computers in a lab or in the back of the classroom during regular class periods.
- In the Rotation model, students rotate on a fixed schedule between traditional face-to-face classroom instruction and a self-paced online learning environment, which may or may not take place on site.
- The Flex model, which is commonly used for dropouts and credit recovery programs, uses an online learning platform to deliver most of the curriculum, but on-site teachers provide support through individual or small group sessions.
- The Online Lab uses an online platform that delivers the entire course, but within a brick-and-mortar setting, and is supervised by paraprofessionals. Students often take such programs with traditional courses within the regular school schedule.
- In the Self-Blend model, students supplement their brick-and-mortar learning with one or more fully online, remote classes.
- The Online Driver model comprises an online platform and teacher, but it also includes optional or mandatory face-to-face student check-ins with teachers or mentors.

Start with a Purpose

For districts considering implementing or ramping up a blended learning program or



A California non-profit benefit corporation, Flex Public Schools, governs the San Francisco Flex Academy, which is a public charter school for high school students in the Bay area. Students attend the school in downtown San Francisco all week long for instruction that is delivered online and offline. Above, a California teacher works one-on-one with a student.

moving from a fully online to a blended program, the place to start is with goals. Kurt LeVasseur, director of online learning and principal of Boulder Universal online public school in the Boulder (Colo.) Valley School District, says the district began its blended learning credit recovery program three years ago because it was losing

students living in remote mountain areas where snow days prevent regular attendance, and the Face-to-Face Driver model to help teachers differentiate learning in the classroom. The program offers over 150 middle and high school courses, half of them credit recovery and half supplemental, to 430 students.

"Teachers who meet with kids are the ones who really motivate students."

—Beth Rattie, director of high school education, Osceola School District

150 high school students a year to fully online programs run by vendors or out-of-district academies, in part due to students' health ailments, bullying concerns, school phobias or the need for a flexible schedule because of a part-time job. The district chose to go with the content provider Aventa (owned by distance learning provider K12) for quick access to the kind of digital content that would be extremely time-consuming to create in-house, LeVasseur says. The district also chose to go with a company-provided, online teacher. "We had to get in the game as quickly as possible," he says.

Boulder's program offers students a choice of four of the six models of blended learning, including Online Lab and Self-Blend for credit recovery, Rotation for

In Spotsylvania (Va.) County Schools, Jan Streich, director of instructional technology and professional learning, says the district's three-year-old blended learning program was designed to help students recover credits, help transfers catch up, and ensure that suspended and expelled students didn't fall behind. Like Boulder, Spotsylvania's program uses the Online Lab model for credit recovery, with all five district high schools offering labs with computers and a paraprofessional on site. The district's other blended learning program targets students with behavioral problems who attend school in a separate brick-and-mortar facility until their suspensions are up. This program follows the Flex model, with credentialed teachers supporting students with individual and small-group ►

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interventions. This allows the students to work at their own pace and to avoid distracting social interactions. Streich says many of these students are finding more success in the Flex model than in the traditional classroom. Last June, she says, the blended learning options allowed over 150 students to graduate who otherwise would not have because of course credit shortages. An ancillary benefit has been equipping students with the technology-based learning skills that will help them in higher education and the workplace beyond school. Spotsylvania also uses Aventa but supplements vendor content with district-created materials.

Instituted in 2008 to serve students who live remotely, have social phobias, are homeschooled or are athletes, actors or others who travel, the Washington Academy of Arts and Technology (WAAT) is a statewide school in Spokane that is open to all pre-K12 students. Principal Barbara Cruse says the growing program has also provided the unforeseen service of helping preserve cultures.

For example, a remote Hutterite farming colony that observes 300-year-old traditions uses the program to offer its children a full pre-K12 education that also includes the agriculture and home-consumer information consistent with their heritage and

targeting high school students working on credit recovery programs. The 40 students involved take courses that combine online learning with face-to-face activities run by tribal elders, such as canoe journeys and classes on arts like totem pole building.

"Some communities are finding the technology and reporting needed for farming is requiring a new skill level."

—Barbara Cruse, principal, Washington Academy of Arts and Technology

practices. "Normally, Hutterites don't go beyond eighth grade; however, some communities are finding the technology and reporting needed for farming is requiring a new skill level," Cruse says.

Each day, a WAAT teacher visits the community, which is about 100 miles from Spokane, to work with 45 students on laptops housed in a local building, which is locked up after lessons are completed. WAAT is also serving Washington's Squaxin Island Indians, whose reservation is in southwestern Puget Sound about 90 minutes from Seattle, with a blended model

A canoe journey is a tradition where up to 100 tribes from Canada to California travel together, play drums and dance. It is a means to learn about each tribe's culture and traditions. For students who have dropped out of traditional schools, this is a way of bringing them back to achieve a diploma while honoring their heritage.

Finding Resources

Finding money for implementing blended learning is primarily a matter of creative funding, says Patrick. Most districts are able to fund programs within their ►



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existing budgets by restructuring resources, she says. For example, instead of textbooks and other paper-based materials, they're using the money to purchase less expensive digital content and to train teachers to teach online. In many cases, schools are also saving money by not having to run summer school courses, as students can recover credits online during the school year.

Horn says another shift that can save districts dollars is to use personnel differently. He points to the KIPP college-preparatory public schools, whose blended classes have allowed them to increase student-to-teacher ratios from 23-to-one to 28-to-one. "You don't have to cut back on services even though you use fewer teachers," he says.

In some districts, federal funds are still coming to the rescue. Because of its phenomenal track record of increasing graduation rates from 63 percent in 2008 to 83 percent in 2011, the Osceola School District in Kissimmee (Fla.) was able to continue its blended learning program through a \$2.3 million 21st Century Community Learning Center grant awarded last year. The grant helped fund after-school programs in the district's seven high schools, says Beth Rattie, director of high school education and alternative programs. Using content from PLATO Learning, the program runs credit recovery, grade forgiveness (where students retake a course for a better grade) and supplemental programs in both Face-to-Face Driver and Online Lab models.

For other districts, a blended learning program is turning out to be a sustainable win-win budgetwise. The Los Altos (Calif.) Unified School District began a blended learning pilot with online content from the Khan Academy, which offers a library of more than 2,400 free videos and practice exercises on a range of academic subjects. The district implemented the program in the fall of 2010, integrating math content, which was the most fully developed course area in the Khan offerings, into three fifth-grade classes and one seventh-grade class, with a goal of helping teachers differentiate

Key Considerations in Blended

IN THE PAST FIVE YEARS AS CEO OF THE International Association for K-12 Online Learning, I have witnessed tremendous growth in the use of online learning as a solution for today's students. In recent years, there is a new trend taking the best instructional models and technology tools from student-centered, online courses and bringing the designs and flexibility that online learning affords into our brick-and-mortar classrooms.

In the next five years, I expect tremendous growth in blended learning as a way for America's school districts to confront a number of challenges—continuing budget constraints, a diminished range of course offerings, teacher shortages in hard-to-staff areas such as STEM—and to deal with ever-increasing pressure to boost performance. With so much on the line, many traditional schools are turning to online and blended learning solutions as a way to more easily scale high-quality learning for all students.

We are part of an important movement; the rapid pace of enrollment growth represents the fastest mainstream adoption of any innovation in K12 education. In 1999,

learning, says Superintendent Jeff Baier. The results have been increased collaboration, more personal time with teachers, and motivated fifth-graders tackling college-level math concepts. "Parents report a

there were fewer than 50,000 students enrolled in online courses. Today, there are an estimated 4 million students enrolled in K12 online or blended learning programs.

Research Is Necessary

The U.S. Department of Education is also supportive of this growth, citing online education in the National Education Technology Plan released a year ago, and the National Broadband Plan as important innovations. Department officials understand that there is a need for more research in K12 online and blended learning to understand which interventions work best with which groups of students.

The existing research is sparse. In a 2009 attempt to review existing rigorous (control group) studies in online and blended learning programs in K12 and higher education, the Education Department's study "Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies" concluded that students in online and blended learning courses outperformed students in traditional classrooms.

The study cited the extended learning

equivalent (FTE) amount the state pays brick-and-mortar schools per student, but beginning this school year, budget cuts mean that she will only receive 90 percent of what her traditional counterparts do.

"You don't have to cut back on services even though you use fewer teachers."

—Michael Horn, co-author, "The Rise of K-12 Blended Learning" report

lot more conversations about math around the dinner table," says Baier.

But not all blended learning models are economic successes. At WAAT, Cruse is concerned that state policymakers may not understand the expenses involved in her blended model, which rents and staffs drop-in centers in strip malls to provide students with the computer access, teachers and mentors many need for times when they encounter academic or motivation "hiccups" in their online courses. To date, Cruse has received the same full-time

Staff Skill Sets

USDLA's Flores, who is also dean at the Fischler School of Education and Human Resources at Nova Southeastern University in Florida, says requisite skills for successful blended learning teachers include the ability to challenge students with higher-order thinking through such methods as inquiry-based assignments, and the ability to offer many opportunities for support, such as responding to student emails within 24 to 48 hours.

LeVasseur says teachers who are ►

Learning



BY SUSAN PATRICK

time and personalization by design in blended learning environments as reasons for better attainment of student learning. Districts and schools such as VOISE Academy in Chicago, Carpe Diem in Arizona, KIPP in Los Angeles and Rocketship in San Jose, Calif., are embracing blended learning and seeing the results in improved student outcomes, as well. They are also realizing additional advantages for students, teachers and administrators, including better access to data for personalizing instruction and dashboards for leaders to improve decision making.

Good News

The good news for district leaders seeking to implement blended learning programs is the flexibility; there is no "one size fits all" to implementation. Instead, the programs are shaped by their goals. Is the school looking to increase overall student proficiency? Improve high school graduation rates? Enhance foreign-language or college-level course offerings? Boost math and literacy rates? Administrators moving toward

blended learning programs must first articulate their objectives before developing an implementation plan.

There are a number of other important issues that school leaders and administrators must tackle before implementing online learning. Don't forget the importance of community outreach—sharing the trends in online and blended learning, how your teachers are involved, what it looks like for students, and what they can expect—before you start a new program. Stakeholders, including parents and students, should be informed of the process and be given opportunities for feedback. Administrators will need to consider redesigned teacher training and professional development. Product offerings will need to be evaluated for the best quality and fit for each school district's needs.

Critically, local and state policies that help or hinder online learning must also be addressed. The single biggest barrier to adoption is funding that is based on seat-time, which restricts what is possible in a blended learning environment. States need

to offer seat-time waivers and other flexibilities that allow credits to be redefined as competencies, which require students to achieve mastery before moving to the next level.

Another obstacle is procurement. Old-fashioned rules can restrict how funds are spent on instructional materials and can favor textbooks over digital learning. This is rapidly changing, but it remains a problem in about half of the states.

We will continue to push the field of K12 education through new, innovative models of online and blended learning. Quality is key, and together we can ensure that all students have access to a world-class education no matter where they live.

Administrators can learn how to get started on developing their own implementation plan in *How to Start an Online Program*. Details are available at www.virtualschoolsymposium.org.

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used to hands-on, real-world courses such as business, architecture and shop can make the smoothest transition to teaching in blended environments where direct instruction does not work. "I tell teachers to use technology, to incorporate Internet investigations, avatars, blogs, wikis and other interactive techniques," he says.

The bottom line, Flores, LeVasseur and Rattie agree, is a teacher who can develop strong, nurturing connections with students. Rattie says 85 percent of what makes a good online teacher is personality—somebody who can be helpful but also push the kids. "Teachers who will walk around the room, meet with kids and celebrate their successes, no matter how minute, are the ones who really motivate students," she says.

Lessons Learned

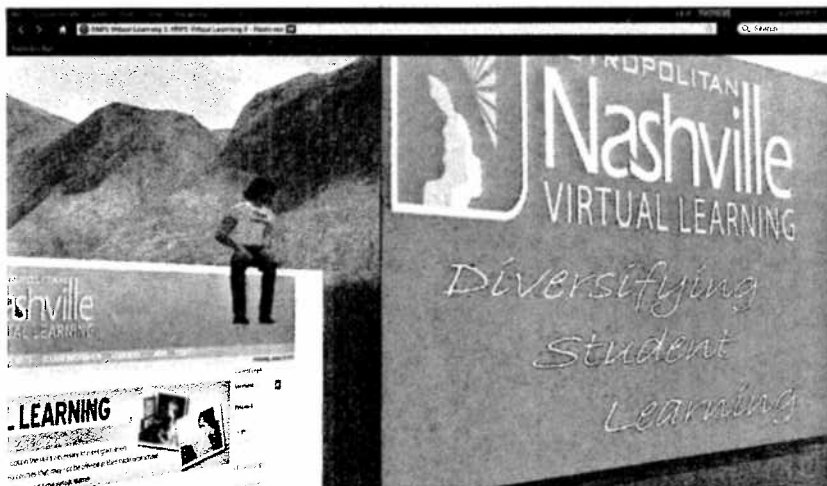
Still in its infancy, blended learning is being figured out by districts as they go, with trailblazers happy to share lessons they've learned along the way. For the WAAT program, Cruse says the drop-in centers, where students can go to access computers if their own has crashed or their parents can no longer afford Internet access, have played an important role. They also allow high school students to meet with qualified teachers to help them through upper division math and science courses, and they give K8 homeschooled students opportunities to socialize with peers through activities such as hands-on art lessons, story hours and group trips to the library to check out books.

Cruse has also learned to screen for students who think blended learning is a magic bullet. In the first two weeks, she tries to instill good independent learning habits, such as pacing oneself by taking regular breaks from work on the computer and then returning to instruction. Students who can't keep up a regular pace are dropped from the program.

In Osceola, Rattie has limited blended coursework to brick-and-mortar labs, as



Brownsville Academy High School in Brooklyn, N.Y., uses a program that help students who are at least two years behind get back on track. Above, a teacher guides seniors in using iMovie to create a Public Service Announcement about a credit issue in the 2010-2011 year.



The Metropolitan Nashville (Tenn.) Public School District launched its full online virtual school this past school year, accommodating 500 students. It's expected to save the school money, given that 25 students can learn 25 subjects in the same room with only one on-the-ground adult. Above, is a screen shot of the virtual student center available to all students.

at home there's too much inappropriate input on assessments from parents and friends. Students stay on track in the classroom, as tech support immediately notifies the supervising teacher when a student goes to Facebook or another site. Also, for the exam portions of the program, students must now sit at a computer next to the teacher's desk.

LeVasseur says pacing is the biggest

challenge for students at Boulder Universal, so every two weeks, their progress is checked to make sure they haven't fallen behind. If they have, they're required to come in more often for classroom check-ups by teachers at their home schools.

Trends Point Upward

Trends in blended learning look promising for increased individualization, quicker



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The Siemens We Can Change the World Challenge aims to advance student achievement in science and sustainability while bringing students together to brainstorm and problem-solve, all while gaining 21st century skills. Students learn to work both independently and cooperatively to identify solutions that just might change the world.

"All teachers need to do is introduce the Challenge to their students and then get out of the way."

A conversation with Cindy Moss, Director of Science, Technology, Engineering and Math for the Charlotte-Mecklenburg School District (N.C.)

What did your district do to get involved with this program?

I liked how the Siemens We Can Change the World Challenge offers opportunities for students at many grade levels to get involved. And that it targets how students can make a difference, which is important to our district.

Tell us how your teachers got the students interested in the Challenge.

All teachers need to do is introduce the Challenge to their students and then get out of the way. This is something where students can take the initiative.

How did your students identify a problem and solution?

The students looked around their school to identify an issue. They focused on recycling because our schools run out of funding for paper by the end of the school year.

What have you heard from teachers and parents about how the Challenge has sparked greater interest among students in learning about science?

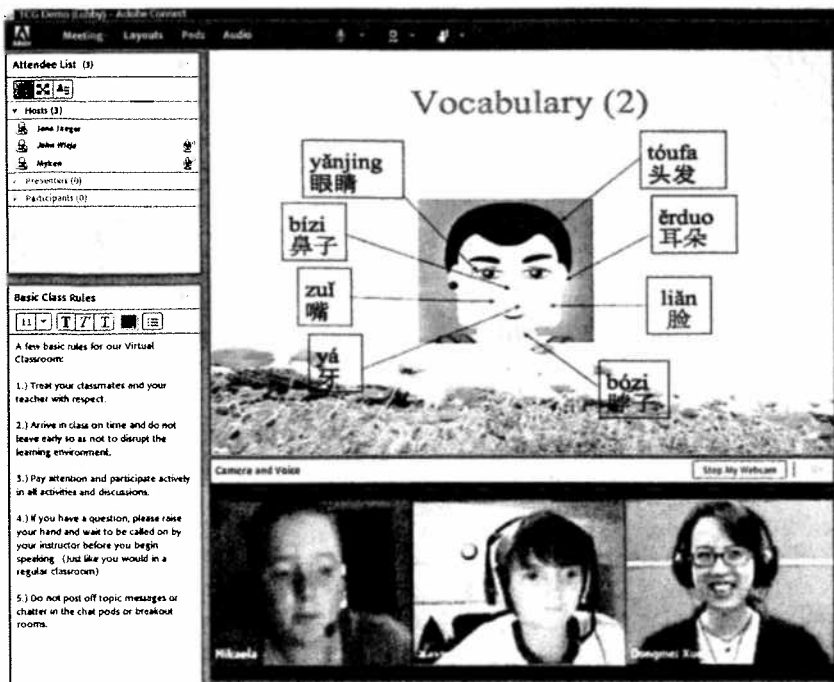
Teachers, the principal and parents have reported that their children and students are now looking at other issues in their community and asking questions. They really believe they can make a difference in the world.

What feedback have you received about the program's appeal to students?

This challenge is exactly the type of learning experience that promotes diversity and in these students, it brought out their community, artistic, theatrical, mathematical and scientific abilities.

What would you tell administrators at other school districts about this program?

This type of challenge is exactly what energizes students and teachers to delve into a deeper understanding of issues. It costs nothing. It encourages collaboration. And it involves developing 21st century skills.



Students in the Quakerstown (Penn.) Community School District learn Chinese daily using myLanguage360 in a live, synchronous class from their teacher who is 6,000 miles away in Beijing. Above, the teacher conducts a vocabulary lesson using an interactive whiteboard.

interventions and a greener world. The next generation of adaptive learning management systems (ALMS), technology-based learning platforms that tailor instructional content based on user responses, is helping students in both face-to-face and blended learning environments complete courses. For example, ALMS provider Synaptic Global Learning, which has just recently entered the K12 space, says its 4DL HITE technology has resulted in a 90 to 95 percent course-completion rate for the 5,000 to 6,000 higher education students it has served, says company principal Nish Sonwalkar. Florida Virtual School (FLVS) English instructor April Schmidt, who has taught nine years for the organization and began implementing ALMS two years ago, has noticed that students are completing courses faster because they're "getting" the instruction, which matches specific strategies to their individual learning strengths.

Blended learning is also making education greener, says Michael Horn, as smaller buildings with lighter carbon footprints can replace the huge brick-and-mortar buildings once required. Many districts are also drilling down to offer unit recovery, which allows students to receive specific skill interventions before failing an entire course.

This fall, Boulder Universal is implementing an "early warning" system for students involved in blended and fully online courses. The learning management system (LMS) will flag a failed test immediately, pinpoint the skill gap, and notify teachers and parents, which will trigger an immediate intervention. The student will then receive a double-dose

"I've seen online learning grow since the satellite days and I know there's no limit to what it can do for students."

—John Flores, CEO, U.S. Distance Learning Association

of instruction with both vendor- and teacher-crafted content.

Says Flores, "I've seen online learning grow since the satellite days, and I know there's no limit to what it can do for students. Today, students and parents are expecting and demanding that blended and other online models are integrated into every district's curriculum offerings. And they're right to do so."

Where to Go from Here

Experts agree that starting small, perhaps with a summer school or evening

pilot program, is the best way to begin a blended learning program. LeVasseur suggests starting with the Face-to-Face Driver model, which is when an in-person teacher delivers most of the curriculum but integrates online learning in individual student cases for remediation or supplemental support as needed. "This allows you to figure out problems gradually, such as a learning management system that doesn't work with the content vendor, a system going down, or the wrong tech support," he says.

Having a clear goal, a vision, and then communicating that vision to all stakeholders is another important part of the process, says Streich. Parents and others need to understand what the goal is.

And starting off with some degree of vendor content helped several districts get programs off the ground faster, allowing them to develop their own content gradually. "Anything is better than starting with a blank page," says LeVasseur.

Finally, experts say that recognizing the key role adults and K12 administrators play in the blended learning process should be a primary consideration for

any program, as in the end, success is about the trust in and respect for teachers that students have. Salman Khan, founder of the Khan Academy, calls his model of "flipping," or reversing traditional classroom-homework activities, a "humanizing" experience, as students can view lectures alone from home, and then go to school and work with peers to connect, collaborate and solve problems together. **DA**

Susan McLester is a freelance writer in Northern California.