

A photograph of a classroom scene. A male teacher in a plaid shirt is pointing at a large world map projected on a screen. A female student in an orange shirt is looking at the map. The map shows various countries, with 'IRAN' clearly visible. The background is slightly blurred, showing other parts of the classroom.

BOOSTING ACHIEVEMENT THROUGH BLENDED LEARNING

Some tout the combination of
classroom and independent study

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The term “blended learning” means slightly different things to different people, but it usually involves some blending of traditional classroom and independent, “hands-on” learning that’s most often delivered online. The term encompasses a variety of experiences, depending on what resources students have available to them in school, at home and in the library.

Some educators say the definition should include the use of multiple types of printed materials in the classroom; for example, the use of textbooks as a strategic, targeted resource rather than as a backbone of curricula that need to be read front to back, supplemented with the use of primary source documents to provide an even richer understanding of the subject matter.

The online learning component that most proponents and observers see as being part of the equation has mushroomed in the past decade from 45,000 K-12 students in 2000 to more than 3 million in 2009, shifting from mostly a distance-learning phenomenon to blended learning that’s at least partly in an adult-supervised environment, according to the Innosight Institute.

The combination of tough budgetary times, teacher shortages and a greater demand for results is accelerating this trend, the Institute says, noting that U.S. Secretary of Education Arne Duncan has described a “new normal” where schools will need to do more with less. “Blended learning is playing a vital role, as school operators begin to rethink the structure and delivery of education with the new realities of public funding,” the Institute says. “A small but growing number of schools ... are now starting to introduce blended learning into their core programming.”¹



BLENDING LEARNING BLASTS OFF

Rocketship Education, which manages three elementary charter schools in San Jose, Calif., is among the practitioners of blended learning. In 2010, the two schools that Rocketship managed had a combined student body with 86 percent English language learners and 88 percent qualified for free or reduced lunch—and they were the two highest-performing low-income schools in Santa Clara County, ranking among the top 15 of all California schools with low-income populations of at least 70 percent.

Rocketship's blended model centers around a learning lab where students progress through online lessons in math and reading supervised by paraprofessionals. Each day, they attend one "block" of this learning lab, along with a block of math/science and two blocks of literacy/social studies. With no certified teachers in the learning lab, Rocketship has been able to reduce staffing by five teachers, which has saved resources that the school has reinvested in teaching training, leadership development and academic intervention programs.²

But teachers remain central in this new configuration. Those who see online K-12 learning as being the death of face-to-face interaction are overly pessimistic, believes (and hopes) middle-school teacher Heather Wolpert-Gawron. "This isn't so—or at least in the

interest of the future of rigor in education, it shouldn't be," she writes. "In fact, without a heaping dose of F2F time plus real-time communication, online learning would become a desolate road for the educational system to travel."³

Educators need to realize the question isn't if blended learning is coming to their district, the question is when, Wolpert-Gawron writes. As such, teachers must be part of the design and ensure that the process contains the necessary rigor.

"I have found that many who dream of online learning somehow imagine a virtual school where teachers are no more than those who load up the assignments and set up the learning management system," she says. "But by taking actual teaching out of the distance learning equation, we are dooming distance learning to mere correspondence course status. And it has the potential to be far greater than any model we have thus far imagined, but only if the tools are used properly and if the balance of offline interaction and online learning are aligned."⁴

When Wolpert-Gawron helped to pilot a distance learning program in her district, the three vendors of learning management systems with whom she met all offered systems that enabled her to load recorded lessons, upload videos, provide assigned links for

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Blended Learning Initiative at Penn State University

homework, post her handouts and grades and receive assignments. “Pretty cool; but not enough,” she says. “It was all asynchronous, taking place without the real-time guidance of the teacher.” When Wolpert-Gawron asked one of the vendors about this, the response was that teachers weren’t necessary to student success in that environment.

“\$%#^\$^&?!!! (Excuse my language),” she says.

DEFINITION AND DESIGN

Education technology consultant Gray Harriman defines blended learning simply as a combination of online and face-to-face learning aimed at the most efficient, effective instructional experience. This can mean a blend of Web-based resources, event-based activities, face-to-face classrooms either led by instructors or driven by work teams, live or asynchronous e-learning, and self-paced instruction like reading assignments on CD-ROM.⁵

“A blended learning approach combines face-to-face classroom methods with computer-mediated activities to form an integrated instructional approach,” according to the Blended Learning Initiative at Penn State University. “In the past, digital materials have served in a supplementary role, helping to support face-to-face instruction. For example, a blended approach to a traditional, face-to-face course might mean that the class meets once per week instead of the usual three-session format. Learning activities that otherwise would have taken place during classroom time can be moved online.”

Penn State acknowledges there is no universally agreed upon definition and notes that terms like “hybrid” and “mixed-mode” are used interchangeably in literature. “The term ‘blended’ encompasses a broad continuum and can include any integration of face-to-face and online instructional content. The blend of face-to-

face and online materials will vary depending on the content, the needs of the students and the preferences of the instructor.”⁶

The Innosight Institute presents a “simple, umbrella” definition for the term: “Blended learning is any time a student learns at least in part at a supervised brick-and-mortar location away from home and at least in part through online delivery with some element of student control over time, place, path, and/or pace.” The quality of blended learning programs varies widely, the institute says. “Blended learning can be both good and bad. Some blended-learning programs save money; others are more expensive. Some blended-learning programs produce stellar results; others do not.”⁷

The Innosight Institute sees six potential models for blended learning programs: face-to-face driver programs where teachers still deliver most of the curricula, rotation programs with fixed schedules between face-to-face and online, flex programs where teachers provide face time as needed, the online lab model where the entire course is delivered online but in a lab environment with paraprofessional supervisors, self-blended programs with some online-only courses delivered off-site, and the online driver model where everything is online and face time with a teacher is potentially but not necessarily required.⁸

To design a blended curriculum, Harriman recommends analyzing course objectives and then breaking them down into the smallest possible “chunks,” determining what the best approach to teach each lesson might be, then aggregating those lessons into logically grouped instruction that accounts for the methodology.⁹

To create a blended learning model, Wolpert-Gawron recommends that the first class be face-to-face (or at least via virtual conference or Skype), assessments

should be real-time with the option for face-to-face provided, class should be conducted synchronously on multiple occasions, content delivery and discussion methods should be differentiated, and class size should be limited. “Don’t let online learning supporters who do not understand educational quality deceive our K-12 schools into thinking that class sizes can be larger in a distance learning environment and quality won’t be affected,” she writes.¹⁰

BENEFITS AND CHALLENGES

The obvious advantage of blended learning is that the instructor can match the best medium for each segment of the course, maximizing teaching effectiveness, Harriman believes. The classroom is most effective for coaching, feedback and paper-based tests, for example, while self-paced e-learning works well for online case studies, interactive learning modules and online assessments, and live e-learning provides online coaching, interaction between students and feedback.¹¹

The Innosight Institute believes blended learning could revolutionize both the quality and cost of K-12 education, providing a more personalized pedagogy that enables students to work at their own pace, with fewer and more specialized teachers and more efficient use of space.

“Leveraging technology in this way changes the assumptions of the traditional school model, where labor has accounted for 70 to 85 percent of costs and where only a fraction of students have access to great teachers,” the institute says. “Teachers shifting to blended-learning models are finding that they have more time to focus on high-value activities like critical thinking, writing, and project-based learning as they spend less time on low-value, manual tasks.”¹²

The asynchronous conversations that blended learning brings about provide time for students to process their thoughts, digesting information and responding at their own pace. The process also draws out shy

TECHNOLOGY GUIDES STUDENTS THROUGH ‘DANTE’S INFERNO’

Technology isn’t a fun “extra” for Melissa Meyers, high school English teacher at Stanbridge Academy, a private special education school in San Mateo, Calif., that specializes in mild to moderate learning disabilities like severe dyslexia, disorder of written expression and various speech and language difficulties.

“Reading is neither pleasurable nor natural for them,” she says. Technology provides “a voice for dyslexic readers, an essential communication and social device for autistic students, a tool for the dysgraphic, and an organizational must-have for everyone. Is technology in the classroom worth the hype at my school? Absolutely.”¹³

When parents occasionally ask her why students spend so much time using technology, Meyers answers that integrating technology helps to build multi-modal instruction, provide supplements for remediation or enrichment, gain buy-in from students, create text-to-world connection, and undergird 21st century skills. Plus, her students have shown marked improvement in reading and writing.

While reading “Dante’s Inferno,” for example, her 12th grade World Literature class uses an interactive website called Virtual Inferno that provides a tour of Dante’s Hell, “from Dante’s mysterious awakening in the Dark Wood of Error, down through nine levels until we reached the Cocytus where Satan himself resides, encased in ice forever.” They also research and write about the “Dante’s Inferno” video game, and listen to Franz Liszt’s “A Symphony to Dante’s Divine Comedy” while viewing Gustave Dore’s illustrations.¹⁴

Meyers says that such synergy only works when teachers are well-trained to use technology in the blended classroom. She cites a 2009 National Center on Education Statistics survey that showed only 29 percent of teachers use computers “often” during instruction. “Such a wasted opportunity!” Meyers says. “Technology is certainly worth the hype, but it will remain only empty, extravagant claims if teachers aren’t trained to use it effectively and aren’t as enthusiastic—and evolved—as their students.”¹⁵



students who might not speak up in front of a group; one study showed that the ability to have ice-breaking blog discussions took the class participation rate from 17 percent to 72 percent.¹⁶

Penn State sees the goal of a blended approach as bringing together the best of both worlds: classroom time to engage students in advanced interactive experiences combined with multimedia-rich content and anytime, anywhere flexibility provided by the online component.

But bringing this scenario about is considerably easier said than done: One needs sufficient resources to create the time- and labor-intensive online materials. And students and faculty will need to be walked through what is likely an unfamiliar concept, with details on what blended instruction is, why it's employed and how best to leverage its advantages.¹⁷

Harriman sees several challenges in delivering blended learning. The instructor must account for the greater instructional complexity that it entails in designing courses, and how that affects the learner. One must figure out how to manage roles and responsibilities in this environment, since it's not based on a single instructor at the front of the classroom.

Instructors and their assistants must continuously communicate to achieve a seamless experience, and they must manage expectations of both those who are reluctant to adapt and those who are overly eager but

over-estimate the benefits. Finally, to control costs and meet return-on-investment goals, one must put into place cost controls that mesh with measures of quality assurance and learning effectiveness.¹⁸

SEIZE THE POTENTIAL

Blended learning has transformed the Carpe Diem Collegiate High School in Yuma, Ariz., according to the Innosight Institute. Initially a traditional charter school serving 280 students grades 6 through 12, the school lost its lease eight years ago, slashed its budget and rethought its assumptions.

The result: a large room filled with 280 cubicles containing computers—not unlike a call center. Students spend a 55-minute period in this center supervised by paraprofessionals, then rotate to face-to-face instruction in traditional classrooms, where the teacher enhances and applies the material. As a student progresses through the online lessons, if they struggle with a concept for more than three minutes, the online system alerts an “assistant coach” who responds immediately, motivating students to stay on task and resolve problems quickly. When they solve each problem, they move on to the next “level,” not unlike a video game.¹⁹

The school has only six full-time certified teachers: one each for math, language, arts, science, physical education and social studies. Each teacher has responsibility for all students for his or her subject expertise; for example, the math teacher provides all

face-to-face math instruction for students throughout the week, no matter which course they're taking. With only six certified teachers—plus the support staff of assistant coaches, guidance counselors, aides and administrators—the savings are substantial. And that allows Carpe Diem to pay its teachers at or above district salaries with a better benefit plan.

Other operators of blended learning use variations on this theme. Some use a mix of online teachers in charge of academic content with in-person mentors who work directly with students and their families. Some ask teachers to pull together groups of students struggling with the same concepts. Others offer more flexible hours to accommodate different schedules.²⁰

Schools frequently say online products have not yet fully matured, lacking the required functionality as well as the ability to “talk” to different systems. But companies like K12 Inc. and Connections Academy have begun to gain traction in this market, showing promise in building integrated systems, producing hundreds of hours of high-quality dynamic content, analytics that allows operators to provide more effective learning, automation that takes care of attendance and student assessment data entry, and enhanced student motivation through applications that engage and incentivize students.

BLENDING TEXTS, PRIMARY SOURCES

Another dimension of blended learning that can—but does not necessarily—involve technology is the blending of traditional textbooks with primary source documents that give students the opportunity to delve deeper into a topic. The textbooks are not necessarily read front to back, but “dipped into” as needed.

The “Reading Like a Historian” curriculum from Stanford University Education Group provides 75 lessons based around historical questions along with hundreds of primary source documents aimed at students with various reading abilities. The lessons can be taught in succession, but also can stand alone.

“This curriculum teaches students how to investigate historical questions employing reading strategies such as sourcing, contextualizing, corroborating, and close reading,” Stanford explains. “Instead of memorizing historical facts, students evaluate the trustworthiness of multiple perspectives on issues from King Philip’s War to the Montgomery Bus Boycott, and make historical claims backed by documentary evidence.”²¹

Teachers should begin by providing or reviewing

relevant background knowledge, then posing the central question. For some lessons, Stanford has provided background through PowerPoints, for others video clips and sections of textbooks. Secondly, students will need to read the documents and answer guide questions. Sometimes they’re provided a historical document that challenges or expands the textbook’s account of the historical incident under discussion. Students are asked to investigate questions, evaluate evidence and construct historical claims, sometimes working in pairs or teams. Lastly, the whole class discusses the historical question, which shows them how history is often open to multiple interpretations.²²

Students use source documents like letters, articles and speeches as the centerpiece of their research. They learn “sourcing” to gauge authors’ viewpoints and motivations, “contextualization” to understand the full picture, “corroboration” to help students sort through differing accounts, and “close reading” so they absorb text deeply.

Sam Wineburg, a Stanford professor who designed the program, has said that one of its central aims is to “break the stranglehold of the textbook” and the narrow focus on facts and dates that often hinders the possibility that students will learn to interpret and question. “It’s disconcerting to teachers and students who have been housebroken to think there are right answers in history,” he says of the approach.²³

The Common Core State Standards in English and language arts have provided an impetus for teachers to investigate Stanford’s Reading Like a Historian program, searching as they are for ways to teach literacy skills curriculum-wide and build both content knowledge and critical thinking skills.²⁴

Terri Camajani, who teaches U.S. history and government at Washington High School in San Francisco, is one of 330,000 people who downloaded the program curriculum between January 2010 and July 2012. She’s also one of the teachers who participated in an experiment in which five high school teachers were trained in the curriculum, and their classes were compared with five others that weren’t. After six months, students using the program outperformed those who did not in factual knowledge, reading comprehension and “historical thinking,” which combines analytic and strategic skills.²⁵

The program “seems to hit a number of important goals,” says Avishag Reisman, who led the curriculum



development and study as part of her doctoral work at Stanford University under Wineburg. “Literacy skills: got that. Higher-level thinking and domain-specific reading: got that. And basic facts: got that, too. Students did better on the nuts and bolts because they were embedded in meaningful instruction.”

THE FUTURE OF EDUCATION?

To advance blended learning, the Innosight Institute and other groups participated in the Digital Learning Council, which has listed 10 elements of high-quality digital learning. Among them: no cap on enrollment of students in blended learning, no rules on class sizes and student-teacher ratios, allowing students to progress based on mastery of academic competencies rather than seat time, allowing schools flexibility on staffing arrangements and teacher roles, and tying a portion of per-pupil funds to individual student mastery of concepts.²⁶

While 16 states have enacted legislation regarding online learning, many barriers exist to student access and equity, which has meant the growth of online and blended learning programs is strong—but uneven, says Susan Patrick, president and CEO of the International Association for K-12 Online Learning.²⁷

Some states provide no path for students to earn online credits if their districts don’t provide them, while others prohibit charter schools and thus

potentially impede the operation of blended schools, according to the Innosight Institute. On the flip side, states explicitly allow local education agencies to “create or convert traditional schools, all or in part, to blended schools,” charging the board of education with liberating these schools from student-teacher ratios and seat-time requirements.

Most states fall somewhere in between, giving blended learning a chance to get started but holding it back somewhat, the Institute says. “They offer enough regulatory leeway that blended learning is making an entrance, but they have not yet undone a slew of archaic policies that impede the growth of transformational blended models.”²⁸

“At some point, we’ll get to a model school system where every student will be different,” said Chip Slaven, senior advocacy associate for the Alliance for Excellent Education. “Teachers can really do what they can’t do now, and that is spend a lot of time with each student—that’s a great model for us to strive for. The most important thing is that there is data.”

“The choice shouldn’t be between full-time traditional school and full-time virtual school,” added Deidre Finn, deputy executive director for the Foundation for Excellence in Education. “The blended concept is one of the most difficult concepts to convey to policy leaders. It really is the future of education.”²⁹

The question for educators of the 2010s is not whether to use technology in the classroom, but how. Blended learning attempts to draw on the best of both traditional classroom teaching and learn-at-your-own-pace techniques that primarily manifested themselves in distance learning opportunities in the past.

Several strains of blended learning have emerged, ranging from virtually all content being delivered in the classroom to virtually all content being delivered online to just about anything in between, as districts sort through what works best for them—in part dependent upon what resources they have available.

Some people's definition of blended learning also includes a mix of traditional textbooks and primary source documents like letters and speeches. Where textbooks have been read front to back in the past, some teachers are dipping into them selectively and then asking students to dive into the source materials from which the textbooks' information was derived in the first place.

Proponents of blended learning say the question for teachers isn't *if* blended learning will come to their schools and districts—but *when*.

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