

## Issue Brief

# Blended Learning and the K-12 Classroom

New technologies, digital content, assessment data and evolving instructional methods expand opportunities for personalized teaching and learning

## Harnessing the Potential of Blended Learning

The definition of blended learning can be distilled to this: Teach with a variety of online and traditional classroom techniques and tools. It's something that K-12 schools have been doing in some form for many years. Yet today, both the role and potential of blended learning have more importance due to emerging education standards and assessment data, as well as higher expectations from students.

"Today's students are easily bored with slow-moving teaching techniques or those they view as antiquated," says Wayne Feller, Technology and Innovation Coach for Stillwater Area Public Schools in Minnesota.<sup>1</sup> "Both students and parents have higher expectations for teachers to use current technologies, content and teaching methods, and that includes blended learning."

For K-12 institutions, blended learning models support a variety of teaching scenarios:<sup>2</sup>

- **Rotational learning:** During class time, students rotate to a computer lab or among different online learning stations.
- **Flexible learning:** Students move among learning modalities at a self-determined pace, with teachers giving help as needed.
- **Hybrid learning:** Students take a mix of traditional and online classes, working in school and at home. This model supports specialized needs such as credit recovery, distance learning and specialty classes.
- **Flipped classroom:** Selected content (e.g., a lecture or lab preparation instructions) is recorded as a video or podcast for students to review as homework before class. Class time can then be used more productively on labs or group projects.

A Center for Digital Education (CDE) survey covering digital content use in K-12 education found that a roughly equal percentage of respondents use three distinct blended learning models:<sup>3</sup>

- 43 percent combine online and traditional classes
- 43 percent use the flipped classroom model
- 38 percent use the rotation model for giving students access to online learning

Behind this online activity are district goals for offering more personalized learning (reported by 85 percent of survey participants) and increasing student engagement (chosen by 73 percent of K-12 respondents).

## The Impact on Teaching and Learning

When designed correctly and supported by the right resources, blended learning combines the best of in-person and virtual learning in a way that's individualized for each student.

For students, blended learning offers effective approaches to become more involved and engaged in their own learning. This

is especially true outside of class because teachers can create new forms of homework that help students learn more on their own – and blended learning tends to increase student engagement.

For teachers, blended learning supports new ways of delivering lessons, and changes how teachers spend the bulk of their instructional time. Adaptive assessments and learning data help teachers immediately recognize who needs additional instruction and who is ready for the challenge of more advanced work. With this information, teachers can offer specific materials and attention for each student.

## The Critical Role of Digital Content

Digital content is fundamental to blended learning, because it can be used in class and by students as homework or reviewed before a test. Replacing the "one content type fits all" limitations of print materials, digital content allows access to a wide variety of learning tools and resources. For example, the video, educational games and interactive multimedia content that can be supported by blended learning are highly engaging for students and help accommodate different learning styles.

## Minnesota District Embraces Blended Learning

Home to the very first school house in Minnesota, Stillwater Area Public Schools now uses the latest blended learning approaches across all school levels. For example, fifth-graders were the first to study math in a flipped classroom, an approach that is now used in more grades and subjects. At the high school level, more than 120 courses use some form of blended learning.

Reasons for the district's blended learning success include:

- ✓ Recognition by administrators that digital learning is essential given the expectations of employers and the dynamics of today's society.
- ✓ Expanded Wi-Fi access in the schools and support for a bring-your-own-device (BYOD) policy for secondary-level students.
- ✓ Rapid adoption of blended learning technologies and techniques by Stillwater teachers.

"With a proactive outlook, we're able to adopt education practices that are very forward thinking and that create a better, more engaging learning environment," says Feller.

With learning available in many forms, it's easier for teachers to choose the content that will best meet student learning needs. However, in order for digital content to be effective as a learning resource, it's important to choose it carefully.

True digital content involves more than simply replicating the format of a print textbook online. It's also not a printout or an ad hoc collection of links to Web pages. Instead, true digital content *restructures the text and images from print*, then adds video, rich media and interactive activities in a way that is optimized for online learning. Textbook publishers are among the companies that are now offering integrated curricula and digital content packages for K-12 adoption.

## Technology Readiness for Blended Learning

Blended learning will mean more students going online more often to access media-rich digital content and learning tools. It's easy to see that blended learning will place new demands on the technology infrastructures of schools and districts. The table below presents factors to help you determine whether your technology infrastructure is ready for blended learning.

## What Teachers Need to Deliver Blended Learning

Teaching in a blended learning environment involves more than simply learning how to use a new device (although it may involve that

as well). More importantly, blended learning instruction means new ways for teachers to prepare lessons and deliver instruction, as well as manage the classroom through an LMS.

Professional development is vital to help teachers prepare for these changes. Training workshops and peer groups can offer guidance on making the best use of blended learning models, digital content and associated technology tools, and assessment data for specific grade levels and curriculum areas. Teachers also need training on how to use LMS features and data to better target their teaching for the entire class and to identify students who need more individual help.

Tech-savvy peers who serve as coaches help teachers in adapting lesson plans and applying new teaching techniques effectively. Feller is enthusiastic about the role of coaches in his district: "Having a coach available for support gives teachers the confidence to take risks and change their approach to instruction more quickly."

## Conclusion: A Building Block for 21st-Century Education

Blended learning is proving to be a viable and vital model for delivering a 21st-century education that also meets K-12 education standards. With the right preparation, schools, teachers and students can embrace these new forms of instruction and study for improved learning outcomes.

Infrastructure Element	Role in Blended Learning
<b>Network Coverage and Capacity</b> 	<ul style="list-style-type: none"> <li>• <b>Wireless LAN coverage and capacity to support the devices used by students and staff in a school.</b></li> <li>• <b>Sufficient bandwidth on the district connection to the Internet to deliver responsive performance when students and teachers view video or use interactive applications on the Web.</b></li> <li>• <b>Adequate network cabling and power outlets to support more devices in classrooms.</b></li> </ul>
<b>Storage and Delivery System</b>	<b>Storage and access for licensed and teacher-created digital content elements.</b>
<b>Learning Management System (LMS)</b> 	<b>Online portal for teachers to manage student learning and for students to access lesson-specific content and activities, submit assignments and questions, and complete formative assessments.</b>
<b>Computers, Tablets and Other Access Devices</b> 	<b>Enough devices for students to make digital content access and online learning easy both in and out of class.</b>

## Endnotes

1. Center for Digital Education interview with Wayne Feller, June 6, 2013
2. Adapted from "Bringing Clarity to the Confusion," The Blended and Virtual Learning Frontier Special Report, CDE, <http://forms.erepublic.com/cvg-paper-step1-default?r=cvp-paper-step2-default&contentID=169513596>
3. Center for Digital Education Digital Content and Curriculum Comprehensive Report



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