

# Realizing the Full Potential of Blended Learning



# What higher education institutions say about effective instructional strategies, practices and technologies for student learning and engagement.

## Changing the When, Where and How of Learning

Every higher education institution today faces the complex challenges of serving increased enrollment levels within tight budgets. Adding to the complexity are new student expectations for the when, where and how of learning — where passive listening and doing classwork in isolation are no longer acceptable.

These challenges are prompting many colleges and universities to explore new approaches, especially blended learning, for delivering courses. Blended learning delivers higher levels of learning interactivity and collaboration and — more importantly for student and institutional success — higher levels of student engagement.

Educators generally hold a positive perception of the concept of blended learning, and many believe they are already offering some form of it. In a recent survey of higher education technology professionals conducted by the Center for Digital Education (CDE), 90 percent of respondents indicated their institution encourages instructors to use creative approaches to teaching through blended learning.<sup>1</sup>

Despite this positive perception and encouragement to incorporate blended learning, survey respondents indicated that, on average, only 12 percent of courses at their institutions are currently taught in a flipped classroom model (where students listen to a lecture before attending class and then have discussions or work in groups and on projects in class), only 21 percent of classrooms have lecture capture capability and just under 22 percent of instructors incorporate mobile technologies in their lessons — all core aspects of a successful blended learning program.

This CDE white paper, with the support of recent blended learning research findings, aims to clear the blended learning confusion. It outlines what it really takes to implement an effective blended learning program and provides guidance for higher education institutions wanting to take advantage of the improved collaboration and student engagement benefits blended learning brings.



## What is Blended Learning, Exactly?

Although blended learning is an area of exploration in higher education, faculty and academic administrators don't always have a clear and consistent description for it. A widely accepted definition of blended learning from the Innosight Institute describes blended learning as, "a formal education program in which a student learns at least in part through online delivery of content and instruction with some element of student control over time, place, path, and/or pace and at least in part at a supervised brick-and-mortar location away from home."<sup>2</sup>

## Why Pursue Blended Learning?

Clearly, there are more opportunities for exploration and growth in the use of blended learning in post-secondary education. Some of this growth may be driven by increasing student demands for more learning options. A recent student survey found that college students prefer blended learning courses over those that are solely face-to-face or solely online.<sup>3</sup>

When asked about the benefits of blended learning, 92 percent of respondents to the CDE survey agreed on the following top three benefits: the ability to offer alternate learning opportunities, the ability to offer distance learning programs and increased student engagement. Half or slightly more of respondents also cited increased academic achievement and student retention, better use of classroom capacity and reduced costs as benefits.

For the role of technology in supporting blended learning, survey respondents cited benefits such as making it easier for instructors to reach students and to measure how students use digital materials, and scaling institution or department efforts. Again, the potential for reductions in overall instructional costs by using technology was cited as a benefit of blended learning by slightly more than half of respondents.

When survey respondents were asked specifically about the benefits of integrating a flipped classroom approach with a blended learning environment, they offered the opinions shown in the quotes below.

## Top Benefits of Blended Learning

92%	Alternate learning opportunities
85%	Distance learning
70%	Increased student engagement
61%	Increased academic achievement
59%	Address classroom capacity
56%	Increased student retention
50%	Reduced costs

## Technology Benefits in a Blended Learning Model

92%	Make it easier for instructors to reach students
73%	Help instructors measure how students use digital materials
61%	Scale institution or department efforts
54%	Reduce overall costs

“The time that students spend on campus would be spent in more effective learning.”

“Allows for a leveling of access to (and production of) knowledge, especially in a public research university.”

“Raises the bar for the beginning of each class and levels the playing field.”

“Increases student engagement, retention and offers opportunities for more authentic learning.”

“Better opportunity for students to learn in a collaborative environment and makes better use of student time.”

“Allows for more interaction with students if they receive the ‘lecture’ portion outside of the face-to-face classroom.”

“This format will allow students to communicate with a larger cohort.”

“Seamless integration of learning without depending on borders and physical limits.”

“[Supports] active learning in the classroom, not passivity.”

“[Allows] development of student learning communities.”



Not to be overlooked are the direct benefits of blended learning for students. In the student survey mentioned previously, 84 percent of participants reported that blended learning technologies improved their understanding and retention of course content.<sup>4</sup> Additionally, a study conducted by the University of Sussex found that recorded lectures and other online content increased student comprehension and, in some cases, test scores.<sup>5</sup>

### Delivering True Blended Learning: What it Takes

To gain the full benefit of blended learning, many higher education institutions have already taken some steps to plan and prepare for digital learners. Now it's time to start putting those plans fully into action.

Indeed, CDE's study showed that many institutions are already making several significant efforts to prepare for and accommodate digital learners by developing strategies, making technology investments and experimenting with new pedagogical practices.

**Strategies.** Already, 73 percent of surveyed institutions are incorporating objectives and goals for digital learning into their institutional strategic plans. A comprehensive strategic plan describes how blended learning will be used to meet the varied needs of programs and students, specifically:

- Goals for improving student achievement and reaching new and/or underserved student populations through distance learning and other options for course participation

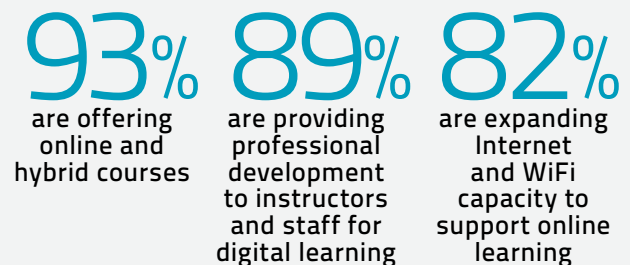
- Needed changes in curricula as well as tools and methods for instructional design and delivery
- New measurements for assessing student participation and achievement
- Modifications and upgrades required for classroom facilities, the campus network and other IT systems and infrastructure
- Requirements for blended learning technology implementation, faculty training, technical support and systems management
- Budget requirements, funding sources and implementation timeframes

**Technology.** Many higher education institutions are already planning new implementations or upgrades in these technology areas: mobile devices, digital textbooks and content, lecture capture and video on demand. Survey respondents have a positive view of technology that supports blended learning, indicating that it will:

- Increase enhancement of course content
- Provide analytics and track active participation
- Support pedagogical styles such as flipped teaching
- Provide virtual space for a 24/7 learning community

## Ready for Digital Learners

The Center for Digital Education survey found that among higher education institutions:





A sound technology plan for blended learning will cover:

- Lecture capture and personal recording solutions for creating the recorded lectures and other video modules that are at the core of blended learning and the flipped classroom
- Digital content and educational applications that can be integrated with recorded lectures and classroom activities for a complete blended learning experience
- A learning management system for tracking course activity as well as tools that enable online collaboration among students and instructors; in its 2011 Digital Community Colleges survey, CDE found that more than two-thirds of online courses at the community college level use some type of online collaboration tools<sup>6</sup>
- Adequate capacity and coverage for the campus wireless network and Internet connections
- Apps for mobile devices to make learning tools and content readily accessible to students; integration of mobile devices for learning activities is increasing; respondents to CDE’s survey expect that 30 percent of courses will have a mobile component within the next two years

Equipping a lecture hall or classroom with recording and display technologies requires significant financial investment. Yet investments in these blended learning technologies can help colleges and universities reduce or avoid building or leasing classroom space. Instead, they can serve growing student enrollments through more courses that are delivered fully or partially online.

**Practices.** According to CDE’s study, just over half of instructors plan to increase the number of courses taught in a flipped classroom model, with 40 percent uncertain and perhaps exploring this option.

However, there can be considerable hesitation among faculty and academic administrators about initiating blended learning approaches and the changes they bring. This hesitation may be caused by uncertainty over the role or value of online instruction in higher education and a reluctance to take risks in terms of curriculum redesign, institutional strategy and budgets (see table below).

Encouragingly, institutions are taking action to prepare instructors for delivering blended learning courses and using digital technologies in the classroom. Eighty-two percent of the surveyed institutions are providing in-person professional development sessions on technology

**Many educators think that blended learning is:**

- Online-only distance learning courses that are a substitute for on-campus classes
- Allowing students to use their laptops for certain activities in class
- Uploading a video recorded by an instructor to YouTube or iTunes U
- Creating an online forum in a learning management system where students can post questions about a course
- Posting course information and updates on a Facebook page or other social media site

**And educators don’t always fully understand:**

- Why they would want to embrace blended learning
- Which types of courses, programs and students could gain the most benefit from more choices for accessing and learning course materials
- What’s required to implement blended learning technologies and techniques
- How to get started

usage and 65 percent are providing dedicated instructional design support. Collaboration opportunities and video-on-demand training are also available to the majority of instructors according to survey respondents.

## Blended Learning in Higher Education Today

Two universities with extensive experience in blended learning approaches and technologies offer their insights on implementation and value.

### University of Kentucky

The University of Kentucky is at the cusp of greater adoption of blended learning, both to keep pace with peer institutions and because faculty and administrators are seeing the benefits gained from initial deployments.

Lecture capture systems are at the core of Kentucky's blended learning offerings and are available in most classrooms. Among the uses for these systems are lecture recording in general courses, recording student presentations for later evaluation by the instructor and serving professional continuing education courses in the medical school. "Students would love every course to be recorded, although many will still come to class because of the extra learning value," says Dr. Vince Kellen, CIO.

Recorded lectures are not mandated for faculty, although usage rates are increasing as instructors become more familiar with the technology and see how it is used by others.

For other higher education institutions, Dr. Kellen offers these recommendations about adopting blended learning technologies:

- Think about your strategy, purpose and audience; don't start with the technology and techniques. Focus on the value to the audience and the institution in terms of learning outcomes, then choose the technologies and instructional approaches that will get you there.
- Be ready to invest in infrastructure and don't be alarmed by the cost because you can proceed incrementally. The adoption of blended learning technologies will drop if the network bandwidth is inadequate or if faculty experience technical problems with classroom systems. "We consistently



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Dr. Vince Kellen, CIO, University of Kentucky

underestimate the effort faculty have to make when they walk into that class and the pressure they're under to perform. The technology in the classroom has to work consistently and reliably," he says.

Dr. Kellen expects the use of lecture capture and blended learning models to increase at the University of Kentucky in order to improve student achievement, avoid and reduce instructional costs, and reduce workload on faculty. "Blended learning is becoming a primary technology for instruction, not a low-investment afterthought," he says. "As we should, we are investing more than ever in academic technology."<sup>7</sup>

### University of Massachusetts Lowell

Blended learning courses, using lecture capture as a core technology, have been growing steadily and carefully at UMass Lowell since 2005. Today, approximately one-third of campus classrooms are equipped with lecture capture systems, which are used for classes in multiple departments, including mathematical sciences, electrical engineering and nursing.

The university administration believes that the blended learning offerings are a differentiating factor for attracting students. "Students are demanding that technology be infused in all aspects of their learning on campus," says Mike Lucas, director of Instructional Technology Support.

Based on the experience at UMass Lowell, Lucas recommends several best practices for adopting blended learning technologies.

**Cultivate grassroots faculty support.** "You want to get faculty buy-in for specific technologies at the grassroots level, both because they'll be the ones using it and because getting word-of-mouth out at the department level encourages wider adoption," says Lucas. He used demonstrations at department meetings, lunch-and-learn sessions, and presentations on student survey data to encourage adoption of blended learning and lecture capture by faculty. As more instructors started to use the technology, they encouraged the department chairs and deans to add their support for funding of a larger deployment.

**Choose a fully automated solution.** For recording and processing lectures, Lucas notes, "You don't want to depend on a faculty member to push a button at the start

of class because it may not happen." The ability to schedule the automated lecture recording at the beginning of the term saves time for both IT staff and instructors.

**Manage classroom assignments.** Assign classrooms that have lecture capture systems to faculty who will be most likely to use them. "This strategy will help you maximize utilization in order to get the best value from the lecture capture investment," says Lucas.

**Deploy adequate data storage and network capacity.** As more faculty record their lectures and more students access them, the network and storage system capacity must be adequate to deliver the level of performance they expect for processing and playback.

For the future, Lucas anticipates greater use of personally recorded video modules by faculty for online-only courses. In this case, the lecture recordings are "a perfect fit," he says.<sup>8</sup>

### Conclusion: Realizing the Value

Higher education institutions are increasingly taking steps to adapt courses and curricula to support blended learning: in their strategic plans, technology deployments, faculty development and academic practices. They are increasingly realizing the value of blended learning in better competitive positioning for the institution, reduced burden on faculty and lower costs for serving more students. But the greatest value of all when an effective blended learning program is implemented? The more interactive, collaborative and engaged student learning that is fostered by blended learning approaches and their supporting technologies.

### Endnotes

1. Unless otherwise noted, all survey results and respondent comments were collected in a Center for Digital Education survey of higher education technology professionals conducted August-September 2012.
2. Classifying K-12 Blended Learning, [www.innosightinstitute.org/media-room/publications/educationpublications/classifying-k-12-blended-learning/](http://www.innosightinstitute.org/media-room/publications/educationpublications/classifying-k-12-blended-learning/)
3. Echo360 2012 student survey, "Blended Learning Technology: Connecting with the Online-All-the-Time Student," [www.echo360.com/student-surveys](http://www.echo360.com/student-surveys)
4. Ibid.
5. University of Sussex Me2 U Project: [www.sussex.ac.uk/elearning/audioandvideo/me2u](http://www.sussex.ac.uk/elearning/audioandvideo/me2u)
6. CDE Webinar: "Digital Community Colleges Survey Overview," [www.centerdigitaled.com/Digital\\_Community\\_Colleges\\_Survey\\_Overview\\_10-27-11.html](http://www.centerdigitaled.com/Digital_Community_Colleges_Survey_Overview_10-27-11.html)
7. CDE interview with Vince Kellen conducted on Oct. 4, 2012.
8. CDE interview with Mike Lucas conducted on Oct. 4, 2012.



As a global leader in blended learning and lecture capture solutions, Echo360 helps higher education institutions keep pace with modern students' learning needs through products that digitally record and upload learning content. Echo360's products facilitate better instruction, lower costs and enrich learning experiences by enabling students to easily access and share multimedia content. Through Echo360's platform, students can replay recorded sessions and review course information online at their convenience and across various devices. More than 400 colleges and universities in 29 countries use Echo360's solution. For more information, visit [www.echo360.com](http://www.echo360.com).



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