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Executive Summary

Blended learning combines the best of online and face-to-face instruction to improve outcomes and increase access in a cost-effective way. Recent studies reinforce the importance of blended learning due to its impact on students. In 2010, U.S. Department of Education found blended learning courses produce statistically better results than their face-to-face equivalents.1

Students also recognize the value of blended course delivery. An Eduventures survey of 20,000 adult students found 19 percent of the respondents were enrolled in blended courses. However, 33 percent of all respondents cited it as their preferred format.2 This preference suggests student demand for blended and hybrid courses exceeds the number offered by institutions today. Blended learning solutions can help close this gap. Using technology, institutions can provide high-quality hybrid courses quickly and affordably. One necessary component of a blended learning solution is lecture capture.

Lecture capture is the process of recording academic instruction through to the delivery of resulting presentations via an online or digital medium. It describes any video-based, presentation-style content that is “produced” for academic purposes, both within and beyond the boundaries of the classroom. In most cases, it includes multimedia content like video, audio and the visual aids supporting the instruction. Lecture capture content may be authored by a variety of constituents, including faculty, lecturers, trainers, instructional designers, field researchers and students.

According to The Campus Computing Project, 60.5% of institutions cite lecture capture as an important component for creating and delivering content. Only four percent of courses, however, utilize the technology.3 Why? In today’s challenging economic climate, it is paramount to understand how a blended learning technology will benefit students before making an investment. This paper offers compelling evidence for blended learning and lecture capture from the student’s point of view.

The Student View of Blended Learning and Lecture Capture

- Blended learning and lecture capture are widely adopted by students when given the option to do so.
- Blended learning and lecture capture have a positive impact on student comprehension and understanding.
- Students view lecture capture as a crucial resource more often than any other blended learning technology.

Numerous surveys have been published by colleges, universities and vendors surrounding student use of blended learning and lecture capture. The data published as a result of these surveys has proven to be highly valuable in advancing the understanding of the technology. However, given the limited reach of some studies (either in terms of surveying students only within a particular discipline or a type of institution), it can prove difficult to extend the findings across different disciplines of study and normalize results across surveys.

The Feedback Loop is a student survey program supported by Echo360 that aims to provide both institutions and higher education industry as a whole with a consistent tool to measure ongoing perceptions about blended learning and lecture capture. The survey can be issued at the discretion of the institution, aggregated across schools and tracked over time.

The same Feedback Loop survey and questions were used across universities for consistency and to simplify tallying of responses. This paper shares the aggregated results from surveys issued at the end of the Spring and Fall 2010 terms. The survey results linked to each institution are not revealed in this paper.

Student survey responses are anonymous and in no case can a participating student be identified. Survey completion was not linked to course performance or grades, and incentives were not offered to students for completing the survey.

The paper draws on the results of a student survey issued at 17 institutions during the 2010 academic year. These institutions include: Boise State University, Drexel University, Jackson State Community College, Johnston Community College, Parker College of Chiropractic, Portland State University, Tacoma Community College, San Francisco State University, University of Illinois at Chicago, University of Kentucky, University of Nebraska Medical Center, University of North Carolina at Chapel Hill, University of Nottingham, University of Tennessee at Martin, University of Texas at Arlington, and University of the Incarnate Word.
Respondent Profiles

A total of 1,746 students from 17 institutions in the United States and United Kingdom participated in the survey.

Key demographic data includes:

- 61 percent of respondents were female and 38 percent were male; one percent opted not to respond
- 86 percent of the surveyed students were enrolled full time
- 58 percent of students attended courses only on campus
- 35 percent of students attended a combination of online and on campus courses
- 5 percent of students attended all courses online
- 77 percent were undergraduates while 21 percent indicated they were seeking advanced degrees (graduate or doctoral)
- 64 percent of the surveyed students were working either full-time or part-time jobs
- 46 percent of the students were 17-23 years old; 27 percent were 24-29 years of age; the remaining 27 percent were 30+ years of age
- Seventy-eight students had learning disabilities and 15 had physical disabilities

<table>
<thead>
<tr>
<th>Department</th>
<th>% of 1,746 Students</th>
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<tbody>
<tr>
<td>Health Sciences</td>
<td>31%</td>
</tr>
<tr>
<td>Nursing</td>
<td>11%</td>
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<tr>
<td>Medicine</td>
<td>9%</td>
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<tr>
<td>Chiropractic</td>
<td>8%</td>
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<tr>
<td>Law</td>
<td>7%</td>
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<tr>
<td>Business / Management</td>
<td>6%</td>
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<tr>
<td>Humanities / Liberal Arts</td>
<td>6%</td>
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<tr>
<td>Pharmacy</td>
<td>6%</td>
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<tr>
<td>Engineering</td>
<td>5%</td>
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<tr>
<td>Computer Science</td>
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</tr>
<tr>
<td>Education</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
</tr>
</tbody>
</table>

Table 1: For 31 percent of surveyed students, Health Sciences best described the course department offering blended learning and lecture capture.
When students are presented with the choice to use blended learning and lecture capture technology, nine out of every ten students do so. A total of 1,746 students participated in the survey and 1,566 reported use of the recorded lectures as part of their studies (see figure 1). The remaining 180 respondents did not watch the lecture recordings and were not presented with the remaining survey questions.

Figure 1: Students who augmented their studies with blended learning and lecture capture solutions. When presented with the option to use blended learning and lecture capture technology, 90 percent of the survey respondents chose to do so.
Blended learning and lecture capture solutions offer a multitude of learning and efficiency benefits for students

Research indicates that class review, making up for an absence and exam preparation are among the top reasons students utilize blended learning and lecture capture technology. The findings of this survey are consistent with those studies. Students were given the option of selecting the three benefits of blended learning and lecture capture (see figure 2). The most popular responses were:

- Helps me review material from class (725)
- Helps me prepare for exams (627)
- Allows me to learn independently (510)
- Clarifies confusing topics (501)

![Figure 2: Student benefits of blended learning and lecture capture.](chart)

When asked, “How does the availability of recorded lectures benefit you most,” students cite class review, exam preparation and learning independently as the top three benefits.
Undergraduate and graduate students perceive different benefits from blended learning and lecture capture

Due to the breadth of respondents to the overall survey, it is possible to compare and contrast the benefits of capture across grade or class levels (see figure 3). Thirty-five percent of undergraduate participants ranked improved performance in class as a top benefit compared to 25 percent of their graduate-level peers. Graduate students report that time efficiencies, including balancing school and work, is the top benefit of blended learning and lecture capture.

Figure 3: Comparison of benefits for undergraduate and graduate students. When asked, “How does the availability of recorded lectures benefit you most,” students cite class review, exam preparation and learning independently as the top three benefits.
Understanding of course material increases with the use of blended learning and lecture capture

Students were asked to classify their frequency of viewing recorded lectures. Seventy percent of the respondents watched the recordings once per week or more. Of that group, 35 percent watched the recordings multiple times per week.

Students found high value in using lecture recordings across all viewing frequencies. For students who watch once per month, 67 percent said lecture recordings improved their understanding of the course material (see figure 4). Furthermore, for high-usage students who watch more than once per week, that number jumps to 86 percent.

\[ \text{Figure 4: Usage frequency and understanding of course material. Regardless of viewing frequency, students strongly agreed that using the lecture recordings helped to improve their understanding of the course material.} \]
Students use blended learning and lecture capture to catch up on missed classes

Perhaps the most controversial issue surrounding the use of lecture capture technologies is attendance. The two principle considerations relating to attendance are:

1. To what extent does the presence of lecture capture encourage students to not attend class when they may have otherwise?

2. What is the impact of students not attending class if the first consideration is true? Does it change the student’s learning outcomes, impact the professor or otherwise affect the students that do attend the class?

While much attention has been given to the topic, the existing research is not conclusive on either of these considerations. It should be highlighted that it was not the purpose of this survey to address these considerations.

When asked about their class absences, 70 percent were absent less than three times during the term. Thirteen percent missed five or more classes. Of those students who missed class, a decisive 95 percent said they used the lecture recordings to catch up (see figure 5).

Figure 5: Students use blended learning and lecture capture after an absence. Student responses to question, “When you were absent, did you watch and/or listen to recorded lectures to catch up on course material?”
Students rank lecture capture as the most important blended learning technology resource

Students were asked to rank the importance of a variety of course resources on a scale of “very unimportant” to “very important” (see figure 6). These resources were:

- Lecture Capture
- CMS/LMS System
- In-class Lectures
- In-class Notes
- Textbooks
- Smartboards/Projectors
- Fellow Students and Collaboration
- Online Journals and Articles
- Tutoring
- Live Conferencing
- Blogs, Wikis

Students ranked lecture recordings as “very important” more frequently than any other technology resource. The top three resources were recorded lectures (44 percent), course management systems (38 percent), and classroom technology including smartboards and projectors (24 percent).

The value of lecture recordings as a blended learning resource increases with usage. Sixty-seven percent of students utilizing lecture recordings once per week or more ranked them as “very important.” For these students, course management systems (46 percent) and classroom technology (31 percent) ranked as the next most important tools.

Figure 6: Students cite lecture capture as a crucial blended learning tool. Students, especially those using recordings more than once per week, selected lecture recordings as “very important” more often than any other course resource.
Students desire additional blended learning and lecture capture in their courses

Given the benefits of blended learning and lecture capture, it is perhaps no surprise that students show a strong preference for increasing the availability in their courses. Eighty-four percent of the respondents would like to see institutions expand the use of blended learning and lecture capture (see figure 7).

Figure 7: Students who would like more blended learning and lecture capture. Eighty-four percent of surveyed students requested more blended learning and lecture capture.
Conclusion

Utilizing blended learning and lecture capture presents a unique opportunity for institutions deliberating where and how to invest their limited resources to support strategic academic priorities. Given its documented contributions to student learning and satisfaction, the use of blended learning and lecture capture across an entire university is becoming commonplace. Institutions are utilizing these technologies to:

- Drive distance learning programs
- Support comprehensive plans to improve graduation rates
- Offer remote learning during emergencies and campus closures
- Recruit and retain more students

While more research is needed surrounding these topics, the data contained in this survey confirms that when an institution includes blended learning and lecture capture, students will integrate it into their studies as a means to improve their higher education experience.

Whether your school is investigating blended learning and lecture capture for the first time or is making the case for expansion, the findings in this paper suggest that students not only use the technology, they experience tangible improvements in their learning as well. Given the strategic implications of blended learning, and its documented student benefits, this technology can be justified as a mainstay for virtually any institution.

For additional resources, conference papers and studies about lecture capture, please visit www.lecturecapture.com. For more information about The Feedback Loop student survey program, visit www.echo360.com/studentsurveys.

Is Your School Evaluating Blended Learning Solutions?
Download the CIO Handbook for Selecting Blended Learning and Lecture Capture
Visit www.echo360.com/evaluate
Appendix One: Survey Questions

1. Which of the following best describes the course department that offered lecture capture this semester?
2. Which best describes how often you viewed recorded lectures?
3. From which locations did you watch and/or listen to recorded lectures most frequently?
4. When did you watch and/or listen to recorded lectures the most?
5. Which device did you use to watch and/or listen to recorded lectures most frequently?
6. If presented with an option, which lecture capture playback environment would you prefer to use most?
7. How many times were you absent from this course during the semester?
8. What was the reason for your absence?
9. When you were absent, did you watch and/or listen to recorded lectures to catch up on the course material?
10. How does the availability of recorded lectures benefit you most?
11. Watching recorded lectures increased my understanding of the material in this course. Agree or disagree?
12. What is your overall level of satisfaction with lecture capture as provided to you in this course?
13. Would you like to see lecture capture in more of your courses?
14. How important are the following course resources to you?
15. What grade do you expect to earn in this course?
16. What best describes your class level?
17. What best describes your enrollment status?
18. How many hours per week do you work?
19. Where did you attend classes this semester?
20. What is your age?
21. What is your gender?
22. Do you have any of the following disabilities?