Capturing Student Perspectives About Lecture Recordings

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:· Summary

Lecture capture is a category of learning technology that describes the lifecycle of recording academic instruction through to the delivery of resulting presentations via an online or digital medium.   In most cases, it includes multimedia content like video, audio and the visual aids that support the instruction.

The term "lecture capture" initially emerged through the predominant use case – the capture of face-to-face lecture-based instruction delivered in the classroom. However, the applicability of lecture capture has broadened due to the maturation of solutions, growing availability of bandwidth and the increased understanding of lecture capture uses by learning technologists. Today lecture capture is better described as any video-based, presentation-style content that is "produced" for academic purposes, both within and beyond the boundaries of the classroom. This change is similar to the increased use of the phrase "blended learning" which articulates a breaking down of the notional divide between campus-based and online learning. Lecture capture content may be authored by a variety of constituents, including lecturers, trainers, instructional designers, field researchers and even students.

The main drivers leading colleges and universities to deploy lecture capture technologies vary from institution to institution. The reported student learning benefits, ongoing shifts in course delivery models and global economic conditions have many institutions rethinking their strategic plans for lecture capture.

This paper focuses on the student learning benefits experienced when using lecture recordings as a learning resource. The paper draws on the results of a survey issued to students at eight US-based institutions during the 2010 academic year. The survey was prepared by Echo360 in consultation with the associated institutions and was based on previous lecture capture research.

Survey Method

In recent years, numerous surveys have been published by colleges, universities and vendors surrounding student use and perspectives about lecture capture. The data published as a result of these surveys is the foundation for many of the cited benefits of lecture capture and have 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 institutions and the broader higher education industry with a consistent tool to measure ongoing perceptions about 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 the Spring 2010 survey issued between April and May 2010. 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.

∴ Respondent Profiles

Eight institutions in the United States participated in The Feedback Loop project including: Boise State University, Portland State University, Tacoma Community College, University of Illinois at Chicago, University of Kentucky, University of Tennessee at Martin and University of the Incarnate Word. One additional college participated, but preferred not to be identified.

A total of 687 students participated in the survey. Forty-eight students answered "never" to the question "Which best describes how often you viewed recorded lectures" and were not asked the remaining questions. The remaining 639 participants responded to the entire survey.

Key demographic data includes:

• 58 percent of respondents were female

• 40 percent of respondents were male and two percent opted not to respond

• 86 percent of the surveyed students were enrolled full time

• 65 percent of students attended courses on campus versus blended or all online

• 76 percent were undergraduates while 22 percent indicated they were seeking advanced degrees (graduate or doctoral)

• 63 percent of the surveyed students were working either full-time or part-time jobs

• 46 percent of the students were 17-23 years old; 28 percent were 24-29 years of age; the remaining 26 percent were 30+ years of age

• Twenty-nine students had learning disabilities and nine had physical disabilities

• Almost 60 percent of the students stated that their primary use for lecture capture technology was in a health sciences related course (see table 1)

Department	% of 687 Students
Health Sciences	58%
General Sciences	15%
Humanities / Liberal Arts	14%
Engineering	8%
Business / Management	4%
Other	1%

Table 1: *For 58 percent of surveyed students, Health Sciences best described the course department offering lecture capture.*

Lecture capture offers a multitude of learning and efficiency benefits for students

Existing research indicates that class review, making up for an absence and exam preparation are among the top reasons students use lecture capture. The findings of this survey are consistent with those studies. Students were given the option of selecting three ways that lecture capture benefited them (see figure 1). The most popular responses were:

- Helps me review material from class (297)
- Helps me prepare for exams (255)
- Clarifies confusing topics (250)
- Allows me to learn independently (225)
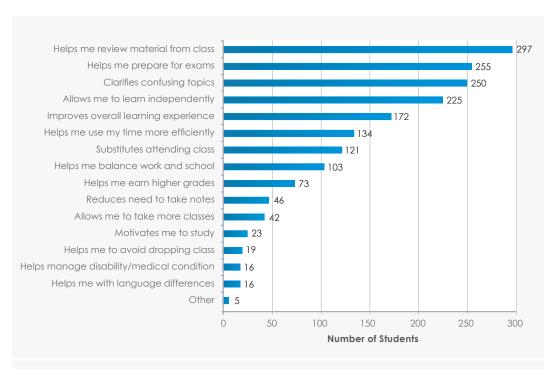

Figure 1: Student benefits of recorded lectures. *When asked "How does the availability of recorded lectures benefit you most," students cite class review, exam preparation and clarification of confusing topics as the top three benefits.*

The benefits of lecture capture are consistent across graduate and undergraduate students

Because of 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 2). This survey shows that there is no significant difference between the benefits of lecture capture between the two types of students: content review and perceived improvement to learning outcomes ranked the highest among both groups.
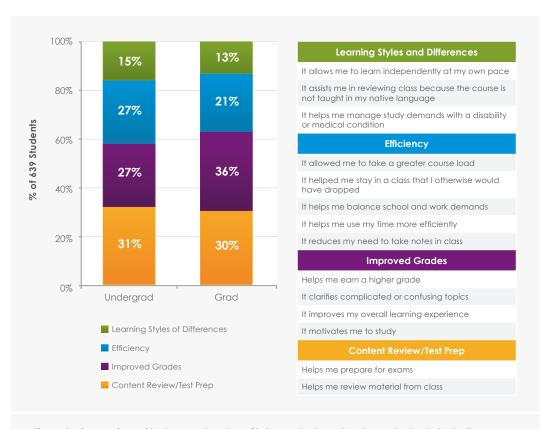

Learning Styles and Differences
It allows me to learn independently at my own pace
It assists me in reviewing class because the course is not taught in my native language
It helps me manage study demands with a disability or medical condition

Efficiency
It allowed me to take a greater course load
It hellped me stay in a class that I otherwise would have dropped
It helps me balance school and work demands
It helps me use my time more efficiently
It reduces my need to take notes in class

Improved Grades
Helps me earn a higher grade
It clarifies complicated or confusing topics
It improves my overall learning experience
It motivates me to study

Content Review/Test Prep
Helps me prepare for exams
Helps me review material from class

Figure 2: Comparison of lecture capture benefits for graduate and undergraduate students. *The comparison between grade levels reveals that graduate and undergraduate students recognize similar benefits of using lecture recordings.*

Students agree that lecture recordings improve their understanding of the course material regardless of usage frequency

Students were asked to classify their frequency of viewing recorded lectures. Eighty-one percent of the respondents watched the recordings once or week or more. Of that group, 11 percent used the recordings daily.

Students found high value in using lecture recordings across all viewing frequencies. When asked to agree with the statement "Watching recorded lectures increased my understanding of material in this course," students who watched more than once per week or more agreed with this statement 87 percent of the time. However, for infrequent viewers (those watching only once per month), 69 percent said lecture recordings improved their understanding of the course material (see figure 3).
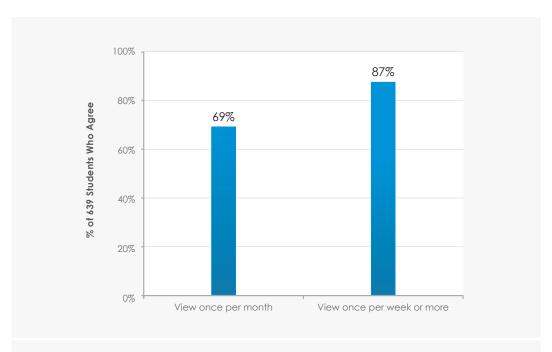

Figure 3: Viewing frequency and the improvement to understanding of material. *Regardless of viewing frequency, students strongly agreed that using the lecture recordings helped to improve their understanding of the course material.*

Students overwhelmingly used lecture recordings to catch up on classes they missed

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 tackle these considerations.

When asked about their class absences, 65 percent were absent less than two times during the term. Only 15 percent missed five or more classes. Of those students who missed class, a decisive 97 percent said they used the lecture recordings to catch up (see figure 4).
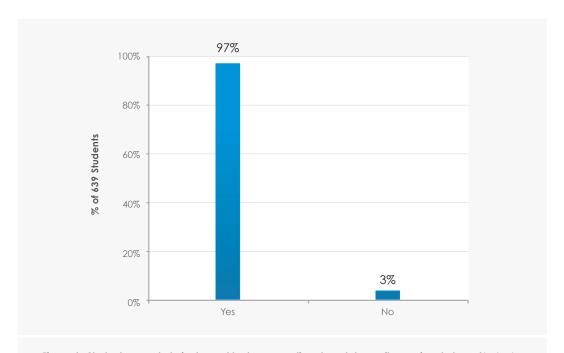

Figure 4: Students overwhelmingly used lecture recordings to catch up after a missed class. *Student responses to question "When you were absent, did you watch and/or listen to recorded lectures to catch up on course material?"*

Students rate lecture capture as a crucial learning 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 5). 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 course resource (56 percent). The top four resources were lecture recordings (56 percent), followed by in-class lectures, learning management system and in-class notes (48 percent).

However, for students who use the recordings frequently (once per week or more), 70 percent ranked lecture capture as a "very important" learning resource. In fact, they selected it as "very important" more often than any other course resource.
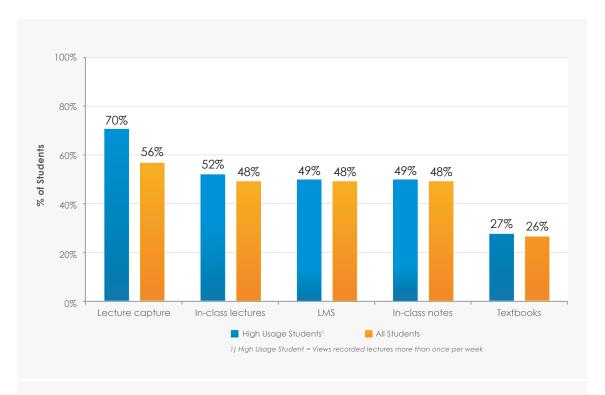

Figure 5: Student rating various learning resources as "very important." *Students, especially those using recordings more than once per week, selected lecture recordings as "very important" more than any other course resource.*

Students want more lecture capture in their courses

Given the benefits of lecture capture, it is perhaps no surprise that students show a strong preference for institutions to offer lecture recordings in more of their courses. Eighty-eight percent of the respondents would like to see institutions expand the use of lecture capture (see figure 6).
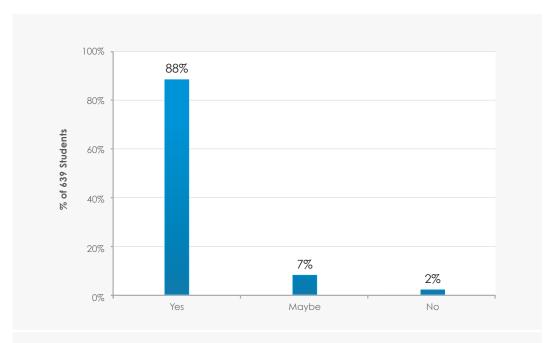
Figure 6: Students who would like lecture capture in more of their courses. *Nearly 90 percent of surveyed students requested more lecture capture. The numbers in the above chart do not tally to 100 percent as three percent of respondents had "no opinion."*

∵ Conclusion

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 move to use lecture capture across an entire university is becoming commonplace. Institutions are using lecture capture to:

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

While more research is needed surrounding some of these topics, the data contained in this survey confirms that whatever an institution's chosen path for lecture capture is, students will integrate it into their studies as a means to improve their higher education experience. The findings from the survey reveal that:

1. Lecture capture is broadly used by students when given the option to do so

2. Lecture capture has a direct, positive impact on student comprehension and understanding, regardless of their course of study or enrollment status

3. Students view lecture capture as a very important course resource more often than any other technology or tool

In today's challenging economic climate, it is paramount to understand how a learning technology will benefit students before making an investment. This paper offers compelling evidence for lecture capture from the student's point of view. Whether your school is investigating lecture capture for the first time or is making the case to expand an existing deployment, the findings in this paper suggest that students not only like the technology, but they experience tangible improvements to their learning as well. Given the strategic implications of lecture capture, and its documented student benefits, lecture capture can be easily justified as a technology 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 survey, visit www.echo360.com/studentsurveys.

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.

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?