A conversation held on April 5, 2011, via the PSU Learning Designers listserv

From: Brett Bixler <bxb11@psu.edu>
Subject: Effectiveness of Recorded Training Sessions?

Hi all,

Are you aware of any studies on the effectiveness of recorded training sessions for teaching and learning? For example, you have a live, F2F session that is recorded and made available to others who missed the live session, etc. No prior scripting - just capture the session. We're trying to determine if doing **only** that is effective, or if it's necessary to go to a next step - take the recording, segment it, and add some supporting material as a wraparound.

The first option is easy, but how truly effective is it? The second is far more time consuming, but seems to me to be possibly far more effective.

If you know of any articles or research in this area, please let me know. Thanks!

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From: John Harwood
Associate Vice President of Information Technology Services

Isn't this really a question of cost-benefit? Sure, post-production will add some VALUE and eliminate some distractions. But to do the full instructional design part goes far beyond what most of us consider "recording of a class."

I wonder whether the literature on lecture-capture would be relevant.

From: Roxanne Toto

Brett, I'd be interested in what you find out. I have a couple of faculty who are currently capturing their class sessions and providing the captures as a resource for students. We have not done any data collection, but anecdotal feedback from the instructors and the students is positive. It might be an interesting research question to design/pursue.

From: Bryan Ollendyke

I remember reading something recently that after 5 minutes people's minds start to wander so 5-10 might be a good "chunking" point. I know we had talked about doing something like that recently with one of our courses.

From: Wendy Mahan

Brian: It's 10 minutes. Just saw John Medina give a keynote on this topic. His book, ***Brain Rules*** is excellent. He discusses this very topic in his Attention chapter. He designs his lectures in 10-minute segments. For the first minute, he gives the "gist," and for the remaining 9 minutes, he provides detailed description of a single topic.

From: Melissa Hicks

Here's a whole site dedicated to research on WBLT:
http://www.cpd.mq.edu.au/teaching/wblt/overview.htm

From: Mark Heckel

A question: would there be value in looking at how many times they stopped and started the playback (if that could be tracked), and how much time they were taking for review and reflection? I would think that if they were taking it slowly, listening/watching and then practicing or reviewing the concept just taught, there would be more internalization of the information and hence a better feeling about that type of learning. Just think' out loud . . .

From: Roxanne Toto

Mark, we have wanted test that very question in other instances … but we have not really been able to find a tool or reliable way to look at 'hits' or time spent on items without having to actually 'program' it.

The goal would be to be able to gather data on aspects of use of the captures: hits, time, user, length of time of view/interaction etc. as an independent source of information; or as comparison/corroboration to student self-report. Data and time stamps would also allow you to see if there were correlations in use to assignments, assessments, homeworks, exams … you get the idea. That would serve to explore Brett's question – and allow you to begin teasing out the info…. So yeah, I think there is value in the questions you pose.

From: Chris Millet
Manager of Advanced Learning Projects Education Technology Services, ETS

There seems to be two different questions here - lecture capture vs. face-to-face instruction and lecture capture with scaffolding vs. lecture capture without scaffolding. I think the latter is what Brett was originally asking, but they are both interesting questions. The impression I got from leading a lecture capture evaluation over the past few months is that most of the literature answers the former questions (lecture capture vs. face-to-face). I'm afraid that most people use lecture capture systems to record verbatim face-to-face lectures (with all the administrivia Elizabeth mentions) without any thought to how that would function online, so of course the captures are going to be less effective.

Brett - from my own research, I would guess that the recordings would require some additional context, chunking, etc.

Mark & Rox - One of the lec cap systems we reviewed, Echo360, creates "heat maps" of student playback, as a way to visualize what parts of captures were watched the most (i.e. where they were having difficulty). That would be very useful in understanding how captures are being used.

From: Ann Taylor
Assistant Director, John A. Dutton e-Education Institute, EMS

Interesting! Their study seems to focus on WBLT versus face-to-face lectures, which seems to be in line with Brett's original question.

Another interesting use for WBLT is when live lectures are captured and then repurposed as the core content for a fully online course. The effectiveness of that strategy definitely varies! As suggested by Bryan's and Wendy's replies, developing WBLT specifically for online course use requires a different approach than is used when developing a live lecture. Chunking into the 5-10 minutes segments that each have a distinct purpose is a great example.

From: Elizabeth Pyatt

I agree that this is a good research question. I think an issue of recording a lecture meant for a face to face setting, particularly a specific course, is that it is rarely staged for optimal recording. The light and audio in most classrooms is not designed for video, and visuals tend to be lost (unless the audio is synched to slides). In most cases, even if the instructor's audio is OK, lot of audience questions are also lost.

Having listened to recorded classroom lectures, I'm also amazed at how much time can be spent on class administration via (due dates, final exam, downloading training files, etc) and the fact that one instructor can fill 5 chalkboards in one hour (guilty as charged).

I think any study would have to factor in these elements somehow.

P.S. I would say Sam Richard's lectures for sociology are an example of what can work, but I can tell a lot of planning for video shoots went into it, including handing microphones to students answering questions.

From: Anita Colyer Grahm
World Campus Manager of Access

And of course you'll be providing transcripts and captions for these videos as well, to make them accessible . . . right?

From: Mark Heckel

To follow up on Anita's point, yes, accessibility does come in to play here.
I believe that we not only need to be looking at the ROI on assessment and finding a way to do it, but we also need to look at the issue of how do we make these captures (lectures or things such as Adobe Connect recordings) accessible. As I see it, this has to be part of the conversation.

Chris' point as to the "heat maps" of student playback is right on target for determining the amount of time that the students stays in the video. It may also be indicative of a very complex or complicated part of the video, or it may be evidence of a part that is not as clear, and needs to be reviewed several times for better comprehension.

As to accessibility, I have been experimenting with Adobe Connect recordings (downloadable as FLV files) by putting them into Adobe Captivate (v.5). Since the recording can be embedded in a single slide, the time a user spends on that slide, and the number of visits that they make to that slide can be recorded and reported. Could this be a way to correlate the degree of user satisfaction with the amount of time spent in the video? Would there be other information that could be gleaned from comparing the length of the video (say 10 minutes) to the length of time spent on the slide (say 30 minutes)? What might we be able to infer from this, if anything?

Additionally, the slide where the video is embedded could be closed captioned for the hearing impaired users. The audio would be directly transferred from the recording, so there would be no need for overdubbing of audio.

As to Elizabeth's point, if the recording were edited to exclude the "administrative", the focused content could then be better assessed as to its effective ness, since the sections of the recording that were irrelevant would be excised.
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