WHAT DOES RESEARCH TELL US ABOUT LECTURE RECORDING?

WHY DO STUDENTS USE LECTURE RECORDINGS?

Students are strongly in favour of having recordings available and believe they are useful (Pale et al., 2014; Bacro et al., 2011). Most students prefer the classroom as the primary learning space with online modes viewed primarily as a supplement to, or occasional replacement for, the face-to-face experience. (Farrington et al., 2014). Students largely use recorded lectures to catch up on missed lectures and as a revision tool for exams and assessments, and often find recorded lectures to be a useful learning tool (Karnad, 2013).

Using recorded lectures to catch up may be because of a clash of classes, or because students are overloaded with assignments, or because they are ill or working or have some personal reason for not being able to attend a particular class (Marchand et al. 2014). Illness or competing priorities such as work or other lectures were more cited reasons for students missing lectures than availability of recorded lectures (Massingham & Herrington, 2006). Danielson et al. (2014) found students were most likely to view the captured lectures in the courses that moved quickly, relied heavily on lectures, were perceived as highly relevant to their future success, and contained information not available in other formats. More students than staff perceived lecture capture to be a useful way to learn.

A survey of 1160 students by Soong et al. (2006) identified key themes for why students use recorded lectures. The top reasons included: I can watch selected parts of the lectures which I don’t understand (34.51%); I find that video recorded lectures help me in preparing for exams (21.46%); I can view the recorded lectures anywhere, anytime (18.14%); I access video recorded lectures when I am sick (10.73%).

HOW DO STUDENTS USE LECTURE RECORDINGS?

Recorded lectures are used to enhance understanding of difficult concepts by able and by struggling students. Students tend to view specific sections of recordings to reinforce their understanding of concepts, instead of viewing lecture recordings in their entirety (Karnad, 2013). Research by Leadbeater et al. (2013) found that 75% of students used recorded lectures, the majority in a targeted manner. In contrast, a small subset of students, (5%), were highly dependent on recording. This ‘high user’ group is atypical, as it contains a high proportion of dyslexic and Non-English Speaking Background (NESB) students (see below).

WHICH STUDENTS MAKE MOST USE OF LECTURE RECORDINGS?

Lecture capture is more likely to be of benefit to low achieving students (Owston, Lupshenyuk & Wideman, 2011). Students with lower academic achievement tend to access recorded lectures more frequently and are more likely to view the lecture in its entirety. NESB students or others who are struggling use recorded lectures to increase their understanding of vocabulary and content (Leadbeater et al., 2013; Soong et al., 2006). Some of these students may attend the lecture and then also listen to the lecture, sometimes more than once (Owston, Lupshenyuk & Wideman, 2011). A study by Marchand et al. (2014) found students used recorded lectures in study groups.

WHEN DO STUDENTS ACCESS LECTURE RECORDINGS?

Students tend to access lecture recordings more actively at the start of the academic semester with reducing activity as the semester progresses (Phillips et al., 2010). However, students start to increase access to lecture recordings again to prepare for assessments and exams (Gosper et al. 2008).

WHAT IS THE EFFECT ON LECTURE ATTENDANCE?

In general, studies have found access to recorded lectures has little to no effect on student attendance at live lectures (Holbrook & Dupont, 2009; Pursel & Fang, 2012; reported in Karnad, 2013). However, the complexity of student behaviour using recorded lectures makes it difficult to draw simple conclusions about whether access to recorded lectures does reduce attendance (Newton et al. 2014). Von Konsky, Ivins and Gribble (2009) found that the availability of recordings was not seen to impact lecture attendance, although students showed some tendency to listen to the recording for a missed lecture. While studies by Drouin (2013) and Johnson et al. (2013) found lower attendance in classes with lecture recordings available than ones without, in each case that difference disappeared when demographic differences between the students in the classes were considered. Other studies have found that recorded lectures do seem to have a slight negative effect on lecture attendance (Gorissen et al., 2012), which may be explained by natural declines in student attendance over time. Marchand et al. (2014) reported that “consistent with the literature, most students reported no decline or only a modest decline in attendance … however, half of the faculty members perceived that attendance had declined by 20% or more”. Students only attend lectures if they perceive ‘value’ in them and having access to lecture recordings is unlikely to have an effect on classes which are not generally valued by students (Massingham & Herrington, 2006).
DO RECORDED LECTURES AFFECT STUDENT RESULTS?
Some studies claim that recorded lectures have little to no effect on student results (Franklin et al., 2011). Leadbeater et al. (2013) found that despite high usage, lecture recordings did not appear to significantly effect academic performance. Phillips et al. (2011) suggest that more frequent access to recorded lectures leads to more positive results and learning behaviours while Traphagan et al. (2009) also found that reductions in student lecture attendance due to the availability of lecture recordings had a negligible effect on student attainment (Karnad, 2013).

DO STUDENTS VALUE LECTURE RECORDINGS?
Research by Beale et al. (2014) found that students rated face-to-face teaching and that supplemented by lecture capture equally, reporting that face-to-face lectures had the advantage of allowing them to interact with the instructor, whereas online lectures could be paused, replayed, and viewed at any time. Boffey et al. (2010) found that students reported using the digital lectures to supplement rather than replace the face-to-face lectures and valued this highly. When asked why they attended lectures when there was a recording available, the largest number (nearly half in some classes) of students in a study by Maynor et al. (2013) said that they came to classes because of quizzes, tests or other activities. Pale et al. (2014) found students’ survey responses indicated they prefer lecture captures for learning and that their availability would not necessarily have a negative impact on students’ live lecture attendance rates.

WHAT ARE STAFF ATTITUDES TO LECTURE RECORDINGS?
In their research into staff attitudes to lecture capture, Bond and Grussendorf (2013) found that the prevalent barrier to adopting the system is a fear about drop in lecture attendance. They noted that staff were willing to record lectures under special circumstances and for equity reasons, such as for students with disabilities. Their interviewees “also referred to the potential for more interesting ways of making use of recorded content”.

Finally, Bond and Grussendorf suggest that lecture recording brings into question the nature of teaching and the role of lectures: why we give them and why we regard it as important that students attend them.

WHAT IS SYDNEY’S LECTURE RECORDING GUIDELINES?
Find out about the University’s guidelines at http://sydney.edu.au/elearning/staff/FAQ_lecturestreaming.shtml

REFERENCES ON LECTURE RECORDINGS


Karnad, A. (2013) Student use of recorded lectures: a report reviewing recent research into the use of lecture capture technology in higher education, and its impact on teaching ... - eprints.lse.ac.uk


This Teaching Insight was prepared by the ITL drawing in particular on the London School of Economics literature review by Karnad (2013), and a literature review prepared by Mary-Helen Ward from Sydney eLearning.