

Assessing the Benefits of Lecture Capture

The term Lecture Capture (LC) is used to describe any type of system where the content of a lecture is recorded usually for dissemination to students at a later date. This can include Audio, Screen or Video capture as well as any combination of the above. This allows students to revisit lecture material anytime, anywhere allowing proactive students to alter their learning situation to reflective their own

Although LC as a concept has existed for over a decade it has only recently started to become adopted on large scales by Universities or other Higher Education Institutions. This recent change is largely thanks to a reduced cost of implementing systems, increased student ownership of smart devices and greater availability (Owston et al., 2011). There has also been an increased demand from students to have access to lecture content after class in order to recap complex theories (Davis et al., 2009). This is paired with the concept of the 'Digital Native', a term coined by Marc Prensky to describe new generations of students who are accustomed to learning using digital content rather than traditional learning styles. Together these factors have led to a large increase in the provision of LC with most Universities now having some form of broad LC service in place.

Benefits

There is a wide consensus that the provision of LC can have wide ranging benefits at higher education including increasing the satisfaction of students (Owston et al., 2011), allowing students to recap theories or concepts and being of particular use for students from Non-English Speaking Backgrounds (NESBs) (Pearce & Scutter, 2010).

LC as a learning tool is highly valued by students in many studies. Gosper et al., (2006) found that 79.9% (N=815) reported that they found it easier to learn with the addition of Lecture Capture to a course. This is backed by other research that sought to ascertain how much of an impact LC had on student learning. Williams and Fardon (2007) surveyed 1070 students and found that 99% regarded LC as Essential or Very Helpful to their studies, similarly high rankings were found during a student feedback questionnaire of University of Sheffield students in December 2014 with 93.75% of student also ranking LC as Very Helpful or Essential. Students also appear to want greater provision of LC across the University, 100% of MyEcho users from the same feedback sessions said that they would like to see the service offered for more of their modules.

Although many studies have used student self-reporting in order to gain information of the effectiveness of LC Day and Foley (2006) attempted to quantify the benefit of the system. 46 students were split into two groups, control (18) and experimental (28). The control group attended lectures as normal whereas the experimental groups were offered access to lecture recordings. Results from assessments were measured across the 15 week course and collated into a final grade which showed a large improvement. The control group achieved an average final grade of 79.95 whereas their experimental counterparts achieved 88.23 and increase of 8.28 points. Studies have also shown that higher achieving students tend to supplement live lectures with LC content (Von Kinsky et al., 2009)

Many studies suggest that LC is of particular importance to NESB students as it may allow them to overcome the difficulties associated with taking notes at a fast pace in a secondary language (Karnad 2013; Leadbeater et al., 2013). NESB students also rank LC highly in regards to its effect on their learning, Pearce and Scutter (2010) found that 79% of NESBs ranked LC as Very Helpful when clarifying key points that they found it difficult comprehend in class. Students noted the uses of LC by saying that it relieved some of the pressure of note taking within lectures and 41% reported that they asked more questions within class as a result of the introduction of LC as they concentrated less of taking notes

(Pearce & Scutter, 2010). Students again showed a demand for this system with 97% of students from this studies stating that would like this offered for all modules.

It has also been suggested that recorded content may be of particular for students with physical or learning disabilities, either to relieve some of the pressure of note taking or for when they are unable to attend lectures due to the nature of their disability (Leadbeater et al., 2009). A study by Leadbeater et al., (2013) found that 6/7 'High Users', those that who watch >5 hours of recordings per module, reported themselves to have specific learning difficult suggesting that LC was a particularly valuable resource to them.

Misconceptions

Some studies have aimed at pinpointing reasons for resistance to the implementation of LC. A main point that has been raised across numerous studies is the issue of Attendance in lectures that begin to provide LC. As such there is a wealth of studies looking into this. Dupont (2009) found no significant correlation between declining attendance and access to recorded lectures. Pursel & Fang (2012) reviewed 47 articles and found that there was no discernible link between provision of LC and declining attendance from both self-reporting studies and those using actual attendance data. Franklin et al., (2011) reported a 5.4% increase in attendance in those modules that provided LC, this increase was attributed to students perceiving that they would gain more from a lecture that also provided recorded content.

Franklin et al., (2011) also highlighted that students will miss lectures with or without the provision of lecture capture and that their decision is based on previous experience of the lecturer's style or their own personal learning method.

Many studies report similar findings and argue that students see lecture recordings as a supplement rather than a replacement to live lectures (Karnad, 2013; Pearce and Scutter, 2010; Von Konskey et al., 2009). Soong et al., (2006) also found that students (N=1165) showed a strong preference (66.84%) for live lectures with recorded content as a supplement.

Conclusion

Both empirical data and student self-reporting studies have found positive benefits associated with the provision of LC within higher education. The provision of recorded content in addition to live lectures has been shown to improve grade scores, increase student involvement and has quickly integrated into part of the student learning experience.

There is often reluctance from some academics and students towards the introduction of LC as they believe that it may lead to lower attendance for live lectures however many studies have found no link between the two. If LC is introduced as a supplement alongside stimulating in class material then it has the potential to increase student understanding and learning both within and outside of the lecture hall. There is also difficulty with the term 'Lecture Capture' providing a narrow view of the applications of recorded content. Lecture Capture can be used in a variety of ways such as the Flipped Classroom, where content is provided beforehand and in class time is used for activities or discussions. This enabled educators to make better use of the small amount of time they have with students, enabling their students to engage with the material at higher levels of Blooms Taxonomy of learning.

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