

Recorded Lectures: An Opportunity for Improved Teaching and Learning

Abstract

The use of recorded lectures is increasing in universities at a time when technology makes those recorded lectures readily available. The increased use of recordings has coincided to some degree with declining attendances by students at on campus lectures. The recording of lectures may be one factor contributing to declining student attendance but it is unlikely to be the most significant factor. There may be many other factors influencing student attendance. The recording of lectures should be embraced because it has the potential to enhance student learning and it provides access to tertiary education for many students who may, for various reasons, be unable to attend campus on a regular basis.

Author

John Tarrant

Faculty of Law, University of Western Australia

Introduction

Traditional methods of teaching include the delivery of face-to-face sessions either in the form of interactive seminars or non-interactive lectures. This paper is concerned with lectures rather than interactive seminars. Lectures are often delivered to large classes, where students can number in the hundreds.

Although the recording of lectures commenced many decades ago for distance education many universities offering on campus education have, in recent years, made such recordings more readily available as an online resource for students. The recording of lectures has created a debate as to the impact of the recordings on student learning. A particular concern is that recorded lectures may be a significant cause of lower attendance rates at lectures.

It is also important to note that there may be reasons other than perceived problems with student attendance that might be factors as to why some lecturers are not supportive of recording lectures. Some lecturers may not want their lectures potentially disseminated to a wider audience or they may be concerned about intellectual property rights. In addition they may be concerned about issues of accountability for comments made during a lecture, for example, the consequences of an off the cuff comment that may cause offense or embarrassment.

The issue of recorded lectures is explored here from a broader perspective than just a focus on attendance at traditional lectures. There may be other explanations for falling attendances and a focus on attendance rates may deflect attention away from examining the benefits and opportunities arising from the recording of lectures. The benefits of recorded lectures will be examined and it is argued that the ability to record lectures provides opportunities to modify teaching methods to enhance student learning and the quality of the student learning experience. There are many ways that teaching and learning could be improved if recorded lectures are embraced as a positive part of teaching. There are opportunities to focus on learning outcomes, assessments and teaching methods to maximise student learning.

Student attendance

In an article with a focus on attendance at lectures by nursing students, and an examination of the consequences of a mandatory attendance policy introduced by the School of Nursing at Dublin City University, Leufer and Cleary-Holdforth (2010, p.18.10) suggest that student non-attendance 'is a universal problem, one that transcends country, university and discipline'. This observation, drawn mainly from the literature rather than being specific to nursing students, did not identify the underlying cause, or causes, of non-attendance by some students. It is important not to make assumptions as to the reasons why some students decide not to attend lectures. There is nevertheless a concern of some lecturers that the recording of lectures leads to lower rates of attendance at traditional face-to-face lectures. But as Williams and Fardon (2007) note, falling attendances at lectures is not new. Importantly they note that research into the phenomenon of falling attendances gained momentum in the 1970s with numerous studies conducted into what motivates students to attend or miss lectures.

It is significant that research suggests that recorded lectures have a minimal impact on student attendance at lectures (Secker, Bond & Grussendorf, 2010) and that there may very well be other factors at work. A study by Engstrand and Hall (2011) concluded that 'no evidence has been found to show that class attendance falls with the availability and use of lecture recordings' (p. 10). As Phillips et al (2007) have noted it is 'well recognised that students have increasing employment and lifestyle pressures which make it harder for them to engage as deeply in the university experience as those from previous decades' (p. 858). What may in fact be occurring is

that the recording of lectures has focused attention on student attendance and any drop in attendance is assumed to have been caused by the recording of lectures. As Preston et al (2010) have noted the trend towards recording lectures has made 'student absence more obvious to lecturers' (p. 721).

One reason for lack of attendance may be the paid working commitments of students. This reason may in fact be linked to fees charged for higher education. These fees may cause students to work during their years of study and, ironically, keep those very students away from attendance at their universities (Williams & Fardon, 2007, p. 8). Other reasons may be 'students' changing lifestyles, their attitudes to learning and their perceptions of the teaching they encounter when they do attend' (Phillips et al, 2007, p. 855).

In relation to the working hours of students Devlin et al (2008) have noted that the gradual transfer of university funding from public funding to individual fees has altered student expectations of, and engagement with, university study in profound ways. They note that the typical Australian student is a working student who engages in substantial paid employment each week. Devlin et al also note that most students are engaged in paid employment for the primary purpose of providing for their everyday needs. They demonstrate the link between paid employment and class attendance when they note that the proportion of students skipping class because of employment commitments is rising. James et al (2010) also found that two-thirds of students work to afford basic needs but their study also found a link between longer hours of work and a lower grade average. Their study also shows that the proportion of students undertaking paid employment in addition to their study commitments has risen significantly in the relatively short period since 2004. They found that the average hours worked has increased significantly from 7.0 hours in 2004 to 7.9 hours in 2009.

There is also a view that students should decide for themselves whether or not to attend lectures in any event (Williams & Fardon, 2007, p. 2). This view is linked to the idea that attendance means different things to different people. Students may consider listening to recorded lectures as a way of 'attending' the lecture in their own time at their own pace (Williams & Fardon, 2007, p.8). It has also been noted that 'students are strategic in the choices that they make as to what they will attend' (Larkin, 2010, p. 245). It is also important to appreciate that there is little in the way of research that demonstrates that lower attendance rates have caused poorer

learning outcomes. In fact, to the contrary, pass rates in universities have increased at the same time that attendance rates have fallen (Leufer & Cleary-Holdforth, 2010, p. 18.7).

But a recent study of students of Microeconomic Principles at the University of Western Australia by Williams et al (2012) provides cause for some concern with the use of recorded lectures on student performance. Their main finding was that students who used recorded lectures as a substitute for attendance ultimately achieved a lower final mark for the unit than students who attended the lectures in person. They found a direct link between attendance and performance. Most significantly they found the relationship to be linear in nature: the more lectures that a student attended in person the higher was that student's final mark. What was also significant was their finding in relation to students who only listened to recorded lectures. Williams et al found that no matter how many times those students listened to the lecture recordings they were still at a disadvantage in terms of final marks. They found that the group of students who benefited the most from the recorded lectures were those students who attended the most lectures in person and then used the recordings as a supplementary resource.

Although there is no conclusive evidence that supports the proposition that in general the use of recorded lectures of itself leads to less students attending lectures, and in turn in some way results in lower final marks for non-attending students, the study by Williams et al (2012) demonstrates that this area should be the focus of further studies. There are many other potential factors that impact on attendance and/or impact on student performance and further studies will be required to identify what behaviour (by students or academics) causes improved or poorer performance by students.

Benefits to individual students

Students see many benefits in recorded lectures including the ability for revision, the ability to engage in self-paced and self-controlled learning, the ability to multi-task by listening to lectures while on public transport or during other periods of downtime, and the ability to avoid distractions in busy lecture theatres (Williams & Fardon, 2007, p. 5-6). Students also use recordings to check over their notes and to review difficult concepts (Phillips et al, 2007, p. 855). Lecture recordings can also reduce stress and provide an additional study resource (Deal, 2007). These different approaches by students reflect the

fact that not all students learn in the same way or at the same pace (Leufer & Cleary-Holdforth, 2010, p. 18.4). The potential benefits from recorded lectures can be obtained by students who decide not to attend lectures and also by students who do attend but use the recordings as a study aid in addition to actual attendance.

Students clearly see recorded lectures as a benefit and many consider that they can learn just as well from listening to recorded lectures. Preston et al (2010) refer to a study in which 68.3% of students believed that they could learn just as well from recorded lectures as they could from attending face-to-face lectures whereas only 3.6% of lecturers held that view in relation to the students (p.722). This seems to be a fundamental reason why some lecturers are opposed to recorded lectures. These lecturers may consider that students are missing out on some of the benefits of lectures by not attending face-to-face. But clearly students do not have the same view. If the students who claim to be able to learn just as well from recorded lectures as from face-to-face lectures have actually attended sufficient lectures to make the comparison then the decision by students not to attend is a rational decision. There are savings in the time and cost of travel and lectures can be listened to during periods where their time might be used less efficiently, perhaps while travelling on public transport. In addition some students may only have time to study at weekends or evenings or may have carer responsibilities making it difficult for them to actually attend lectures even though they have sufficient time to undertake their studies and perform to a high level.

Students can be well organised in how they use recorded lectures and podcasts. Scutter et al (2010) conducted a study on the use of podcasts by students in a medical radiation program. Their study found that many students used the podcasts to listen to lectures again after attending the lecture in person. They were surprised to find that many of these students used the podcasts while using a computer screen to view the PowerPoint slides of the lecture. This was unexpected because the authors had anticipated that students would listen to the podcasts on mobile devices while 'on the go' (p. 186).

But students may not correctly perceive the benefits of recorded lectures correctly if they have a mistaken view of the purpose of lectures. Scutter et al were concerned by one finding of their study which was that many students saw the benefit of the podcasts as enabling them to get the words of the academic 'into their heads' (p. 187). This raised a concern that

students were seeing the lectures solely as a means for the transmission of knowledge. Overall their study showed that students used the podcasts as a way of re-living the lecture experience. McKenzie (2008) conducted a study on the use of recorded lectures by undergraduate psychology students. She also found that students who found recordings beneficial were those students primarily seeking information.

There are also equity and access issues. One benefit of recorded lectures is that more students can have access to higher education. Williams and Fardon (2007) note that the flexibility inherent in recorded lectures opens up a wide range of educational possibilities for lifelong learning for people who work full time and for those who have family commitments (p. 2).

Students merging into a single cohort

In some institutions courses are offered in both an internal and an external mode creating, in theory at least, two distinct cohorts of students. Some lecturers support the use of recorded lectures for external students but not for internal students (Preston et al, 2010, p. 723-724). But student behaviour may be changing in such a way that the distinction between these two cohorts is disappearing and these two types of students are merging into a single cohort. As Preston et al (2010) have observed, there is an emerging issue by which there may be a 'blurring of study patterns between internal and external enrolment modes' (p. 717).

This blurring is evident in relation to the use of recorded lectures, however, the blurring is not reflected in a total merger. Although there is a blurring of study patterns there are nevertheless still some differences. In one study it was found that external students 'were more likely to listen to the entire recording of the lecture, to listen regularly, and to listen to several weeks at a time' (Woo et al, 2008, p.88). Overall, these external students 'seemed more systematic in their approach to using [recorded lectures]' (p. 88). By contrast, internal students 'have a choice of attending the lecture or listening to the recording' (p. 88). It is this option of attending that maintains at least some difference in the pattern of usage of recorded lectures. But for internal students who did use recorded lectures their usage patterns were similar in relation to revision for exams, revisiting complex ideas and concepts and the ability to work at their own pace (p. 89).

Changes to teaching practice

It may be that the concern of some lecturers with student attendance at lectures is that those lecturers may view teaching, or at least lectures, as focused on the transmission of knowledge. What is required is a focus on teaching practice to determine what teaching practice is most effective in terms of student learning. This requires a re-thinking of both the purpose of lectures and, if lectures are to be recorded, what other teaching methods might be employed to overcome whatever detriment might be identified from the recording of lectures.

A single focus on reduced attendance rates may divert attention from this task towards a sole focus on increasing student attendance for the sole purpose of achieving a higher attendance rate. Such a focus on increasing attendance rates may result in activities such as the use of attendance rolls to effectively force students to attend. But that may be a missed opportunity to create better teaching and learning practices.

Despite many lecturers being concerned about falling attendances that may be caused by recorded lectures, some lecturers see recorded lectures as an opportunity to improve their teaching practice. One possible change to improve teaching practice may be to make lectures more interactive so that those who do attend obtain an additional benefit from that attendance (Williams & Fardon, 2007, p. 8). Other lecturers are questioning the role of lectures all together (Preston et al, 2010, p. 722). These lecturers are 'restructuring units to replace lectures with more interactive tutorials or workshops, replacing some face to face lectures with additional tutorials and providing the lecture materials as prerecordings' (p. 722). As Phillips et al (2007) argue 'it may be more appropriate to consider the learning outcomes of students and how best to provide stimulating and engaging learning environments and experiences for students' (p. 863).

It is also important to note that the characteristics of students in higher education have changed in recent decades. As Preston et al (2010) have noted, there 'is now widespread recognition of the changing nature of students in higher education: they are demographically diverse, have extensive external time demands, and expect greater flexibility and support during their programs' (p. 717). But many lecturers 'have not reconceptualised their curriculum and its delivery to meet these changing circumstances' (p. 717). This provides another reason to focus on teaching methods rather than being concerned that the recording of lectures causes falling attendance, if indeed it does.

It must be remembered that student attendance of itself is not a learning outcome (Larkin, 2010, p. 247). That is, mere attendance is not a guarantee that learning will occur (Leufer & Cleary-Holdforth, 2010, p. 18.5). Accordingly, attendance itself is not the most important issue. What is important 'is whether learning is transformative and students achieve the intended learning outcomes determined for that unit of study' (Larkin, 2010, p. 247). Recorded lectures should be seen as 'an opportunity to add value to existing teaching and educational strategies' (p. 247). That is, recorded lectures should be seen as one resource made available to students to enable their learning process to be undertaken. But there are many other aspects of student learning that need to be considered in this context. A single focus on perceived problems with recorded lectures provides a distraction from examining the whole student learning experience to determine the best mix of resources and teaching and assessment methods. With modern technology there are now many more resources available and the recording of lectures is only one use of modern technology in teaching and learning. The challenge is to identify the best mix of traditional methods of teaching with the use of technology driven resources that are most suited to a particular field of study. What might be appropriate in history might be very different to what is appropriate in dentistry and what might work well in law may be inappropriate in fine arts.

Rather than focus on attendance at lectures teaching and learning could be improved by focusing on learning outcomes and ensuring that assessments are set to reflect those learning outcomes. Once these parameters are set the method of delivery can be chosen. This may or may not include lectures. It may be that when the available teaching methods are examined that face-to-face lectures are considered a less effective way to produce the desired learning outcomes. The recording of lectures is an opportunity to reflect on, and improve, teaching models. Recorded lectures are not a threat to teaching and learning.

If student performance is detrimentally impacted for those students who only listen to recorded lectures, as the study by Williams et al (2012) suggests, then the challenge for academics is to find ways to improve student performance. Denying students access to recorded lectures as an incentive to attend lectures is unlikely to be an adequate solution. The challenge is to find other teaching and assessment methods that engage students in face-to-face learning. It may very well be, where resources permit, that students could be engaged in more face-to-face activities based on the assessment of students

in a face-to-face environment. This would give students no choice but to engage. For students not on campus such face-to-face engagement could be conducted via online technology such as Skype that is well suited to one-on-one assessment.

Conclusion

The recording of lectures should not be seen as a sole or significant cause of falling attendance rates by students at lectures. No research study has shown this to be the case. Instead the recording of lectures should be seen as an opportunity to improve teaching and learning. As Larkin (2010) has argued, 'the mode of study is less important than the need to engage students in their learning, using a variety of pedagogically valid strategies' (p. 247). Larkin also argues that when 'academic staff release themselves from the burden of worrying about attendance at lectures, they can become more responsive to the diverse learning and other needs of students and respond to them in pedagogically sound ways' (p. 247). This approach should be embraced. The recording of lectures provides an opportunity to improve student learning.

References

- Deal, A. (2007). Lecture Webcasting: A Teaching with Technology White Paper, Carnegie Mellon University. pp 1-12. Retrieved from http://www.cmu.edu/teaching/technology/whitepapers/LectureWebcasting_Jan07.pdf
- Devlin, M., James, R., & Grigg, G. (2008) Studying and Working: A National Study of Student Finances and Student Engagement. Tertiary Education and management, 14(2), 111-122.
- Engstrand, S., & Hall, S. (2011) The Use of Streamed Lecture Recordings: Patterns of Use, Student Experience and Effects on Learning Outcomes. Practitioner Research in Higher Education, 5(1), 9-15.
- Gosper, M., Green, D., McNeill, M., Phillips, R., Preston, G., & Woo, K. (2008) The Impact of Web-Based Lecture Technologies on Current and Future Practices in Learning and Teaching, Australian Learning and Teaching Council. pp 1-204. Retrieved from http://mq.edu.au/lte/altc/wblt/docs/report/ce6-22_final2.pdf
- James, R., Krause, K., & Jennings, C. (2010) The First Year Experience in Australian Universities: Findings from 1994 to 2009. Centre for the Study of Higher Education, The University of Melbourne. Retrieved from http://www.cshe.unimelb.edu.au/research/experience/docs/FYE_Report_1994_to_2009.pdf
- Larkin, H. (2010) "But They Won't Come to Lectures ..." The Impact of Audio Recorded Lectures on Student Experience and Attendance. Australasian Journal of Educational Technology, 26(2), 238-249.
- Liefer, T., & Cleary-Holdforth, J. (2010). Reflections on the Experience of Mandating Lecture Attendance in One School of Nursing in the Republic of Ireland. All Ireland Journal of Teaching and Learning in Higher Education, 2(1), 18.1-18.14.
- McKenzie, W. (2008). Where are Audio Recordings of Lectures in the New Educational Technology Landscape? Proceedings Asclilite Melbourne 2008, 628-632. Retrieved from <http://www.ascilite.org.au/conferences/melbourne08/procs/mckenzie-w.pdf>
- Phillips, R., Gosper, M., McNeill, M., Woo, K., Preston, G., & Green, D. (2007). Staff and Student Perspectives on Web-Based Lecture Technologies: Insights into the Great Divide. In ICT: Providing Choices for Learners and Learning. Proceedings Asclilite Singapore 2007, 854-864. Retrieved from <http://www.ascilite.org.au/conferences/singapore07/procs/phillips.pdf>
- Preston, G., Phillips, R., Gosper, M., McNeill, M., Woo, K., & Green, D. (2010). Web-based Lecture Technologies: Highlighting the Changing Nature of Teaching and Learning. Australasian Journal of Educational Technology, 26(6), 717-728.
- Scutter, S., Stupans, I., Sawyer, T., & King, S. (2010). How do Students use Podcasts to Support Learning? Australasian Journal of Educational Technology, 26(2), 180-191.
- Secker, J., Bond, S., & Grussendorf, S. (2010). Lecture Capture: Rich and Strange, or a Dark Art?, In ALT-C 2010. pp 1-5. Retrieved from http://eprints.lse.ac.uk/29184/2/Lecture_capture_%28LSERO_version%29.pdf
- Williams, A., Birch, E., & Hancock, P. (2012). The Impact of Online Lecture Recordings on Student Performance. Australasian Journal of Educational Technology, 28(2), 199-213.
- Williams, J., & Fardon, M. (2007). Recording Lectures and the Impact on Student Attendance, ALT-C 2007 Research Paper Submission. pp 1-10. Retrieved from http://www.lectopia.com.au/presentations/altc2007/ALTC2007Williams_attendance.pdf
- Woo, K., Gosper, M., McNeill, M., Preston, G., Green, D. & Phillips, R. (2008). Web-based Lecture Technologies: Blurring the Boundaries Between Face-to-Face and Distance Learning. ALT-J, Research in Learning Technology. 16(2), 81-93.

