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Challenges for this place or any place: student preferences for lecture 'places' in a blended learning environment.

Janine Tarr

University of Tasmania, Launceston, Australia
janine.tarr@utas.edu.au

Sally Farrington

University of Tasmania, Sydney, Australia
sally.farrington@utas.edu.au

Jane Pittaway

University of Tasmania, Launceston, Australia
jane.pittaway@utas.edu.au

Marie-Louise Bird

University of Tasmania, Launceston, Australia
marie-louise.bird@utas.edu.au

Kylie Hoffman

University of Tasmania, Hobart, Australia
kylie.hoffman@utas.edu.au

Tracy Douglas

University of Tasmania, Launceston, Australia
t.douglas@utas.edu.au

Chin-Liang.Beh

University of Tasmania, Sydney, Australia
chin.beh@utas.edu.au

With advances in technology, students now have a choice of 'learning places' that enables them to "be connected to a community of learners anytime and anywhere without being time, place or situation bound" (Garrison & Kanuka, 2004). Our institution places significant emphasis on learner choice, whilst demanding high impact, quality and equity of experience, regardless of the choices made (Brown, Kregor & Williams, 2013). We surveyed our students, across four geographically dispersed campuses, to find out why they make the choices they do about where they learn, in an effort to understand how we can best meet their needs without being overwhelmed by the complexity of offering and maintaining multiple modes of delivery. This paper reports demographic factors that, for the 124 respondents, were associated with mode usage and explores the thinking of students around their choice of learning 'place', identifying key pedagogical and pragmatic themes that were evident in the reasons they gave for the choices they made. The findings provide a complex picture, but our learners readily identified the elements of their preferred mode that 'fitted' with their learning needs at a particular time and in their particular circumstances. We discuss the challenge to us to increase quality and equity by ensuring that the elements students value most in each mode are maintained and enhanced, but are also extended to those who choose to engage via other modes.

Keywords: equity, blended learning, online learning

Introduction

In contemporary Australian higher education, undergraduate students are often able to make decisions about accessing teaching sessions on an *ad hoc* basis. Gone are the days of the clear divide between distance and on campus courses. Primarily it is the ubiquity and accessibility of online applications, learning management systems and digital broadcasting that enable such flexibility, and yet, students still come to the lecture theatre. For teachers within Higher education, it is crucial to understand why students choose a particular learning ‘place’ and what they value within that learning ‘place’ so their selection of teaching methods and media is based on evidence and their curricula align with student needs and preferences.

Our institution, like many, aspires (Brown, Kregor, & Williams, 2013) to build capacity for high quality synchronous and asynchronous learning and teaching interactions to deliver high impact learning experiences, placing significant emphasis on providing choice of place and type of learning experience to ensure the achievement of learning outcomes. Current and future focus is on blended learning but at present many courses and units are offered in the traditional lecture and associated tutorial/workshop mode and the move to a blended learning environment has been limited to the use of a variety of Web Based Learning Technologies (WBLT) “for digitally recording lectures for web delivery” (Gosper, 2008, p.vi), as either an adjunct to or replacement for face-to-face lectures, with asynchronous online dialogue rather truly blending the online and face-to-face teaching and learning. Lectures can be streamed, individually downloaded or automatically downloaded by subscription (podcast or vodcast) from within the institution’s Learning Management System (LMS), but essentially they are recordings of the lecture theatre delivery. This limited use of WBLT is common across the higher education sector nationally and internationally (Gosper, McNeill, Woo, & Green, 2010; Wiese & Newton, 2013), but within each institution there are, of course exceptions.

The changing student profile, with more students requiring flexible and accessible ways of learning to accommodate significant amounts of paid employment (McInnis & Hartley, 2002) and family commitments (Gosper, McNeill, Phillips, Preston, & Green, 2007) has surely been a driver for the introduction of such technologies. Studies conducted within the Australian HE sector indicate that for some years now a majority of students have used recordings as part of their study (Collier-Reed, Case, & Stott, 2013; Copley, 2007; Gyspers, Johnson, Hancock, and Denyer, 2011) but, until recently, being able to choose fully online lecture attendance (either synchronous or asynchronous) has not been possible.

Overwhelmingly, the literature indicates that, when both modes are available, students use recordings to supplement face-to-face lectures rather than to replace them (Bongey, Cizadlo, & Kalnbach, 2006; Leadbeater, Shuttleworth, Couperthwaite, & Nightingale, 2013; McNeill, Woo, Gosper, Phillips, Preston, & Green, 2007; Parson, Reddy, Wood, & Senior, 2009; Von Konsky, Ivins, & Gribble, 2009), though it seems obvious that substituting online ‘attendance’ for face-to face attendance affords individual students the opportunity to meet both pragmatic and pedagogical needs at a time and place of their choosing (McGarr, 2009).

Students report benefits from using WBLT in learning that include catching up on missed lectures, being able to learn at their own pace (Chester, Buntine, Hammond, & Atkinson,

2011), the convenience of being able to listen in their own place and time (Evans, 2008), generating notes (Leadbeater et al., 2013), reviewing complex material and increasing their understanding of lecture material (Collier-Reed et al., 2013; McKinney & Page, 2009), and examination review and preparation (Chester et al., 2011; Copley, 2007; Maag, 2006). Gosper et al. (2007), in their seminal survey of 13,278 students in a variety of disciplines across into 4 major Australian Universities, found that 66.7% of respondents felt that using recorded lectures helped them to achieve better results. Of particular interest is that most of these perceived benefits relate reflect pedagogical, rather than pragmatic benefits.

Student age, gender, confidence with technology, individual learning style and English as an additional language have all been investigated as factors which may affect rates and patterns of usage of lecture recordings. Some studies (Gosper et al, 2007; Kennedy, Judd, Churchward, Gray, & Krause , 2008) have reported age related differences in either rates of use or ways of use of WBLT by Australian students, but others (Williams & Michael, 2007) found no differences. Gender differences have been reported, Pham (2010) found that females listen to more hours of recorded lectures per week than males, whilst Weise & Newton (2013) reported that females were more likely than their male counterparts to use lecture recordings to generate notes and to review material. Having the confidence to use technology to learn may influence the choice of learning process, with a study by Green, Voegeli, Harrison, Phillips, Knowles, Weaver, & Shephard (2003) suggesting that some students did not use lecture recordings because they were not confident with the technology. Weise & Newton (2013) focused on characteristics of the learner, suggesting that surface learners were more likely to use recorded lectures whereas deep learners preferred face-to-face attendance. Collier-Reed et al. (2013) focused on the effects of podcasting on student learning, reporting that recorded lectures were a particular benefit to students who are not first language speakers of the language used in classes.

Perhaps surprisingly, many studies show that lecture theatre attendance rates are unaffected by the availability of recorded lectures and that undergraduate students prefer face-to-face lectures (Bongey et al., 2006; Von Konskey et al., 2009), suggesting that there is something intrinsic to the lecture theatre experience that is valued by the majority of students. Gysbers, Johnston, Hancock, and Denyer (2011) reported that 87% of responding molecular science students almost always attended lectures, despite the choices available to them. Furthermore, many studies indicate that non-attendance at lectures is due to reasons such as illness, paid employment, timetable clashes, family responsibilities and commuting distance from campus (Dolnicar, 2005; Massingham & Herrington, 2006) rather than the availability of lecture recordings. Kelly (2012), investigating factors which affected lecture attendance rates, found that Monday lectures were better attended than Friday and that attendance was poor when students only had one lecture or class on a particular day, perhaps indicative of pragmatic rather than learning-focused decision making by students.

When the focus of a study has been on why students attend lectures, the reasons have been varied, relating positively to the lecture theatre ‘environment’, negatively to online technology, or purely pragmatic – with some age related differences. Respondents in a study by Copley (2007) felt that seeing a ‘live’ lecture was better and Phillips, Gosper, McNeill, Woo, Preston, & Green (2007) found that attendance at lectures motivated and engaged students in learning and stimulated their interest and thoughts. Students were more likely to attend lectures if the quality of the lectures was high (Davis, Hodgson, & Macaulay, 2012; Gosper et al., 2007; Gysbers et al., 2011) and if the lecturer was able to make material clearer to comprehend (Gysbers et al., 2011). Some students enjoy the social aspect of learning in

conjunction with their peers (Gysbers et al., 2011). Gosper et al. (2007) found that the older the student group, the more likely they were to come to lectures because they felt that the lecturer added value, that face-to-face lectures were motivating, and they liked to communicate with the lecturer. On a more pragmatic level, younger students (Gosper et al., 2007) preferred to attend lectures to meet friends, if they were on campus anyway, and felt they would not have found time to listen to recordings at a later time and Dolnicar (2005) suggested that students will attend lectures for practical reasons such as finding out about assessment tasks and other vital information about the unit of study or course.

The context of this research

Current practice in our bioscience units, offered in several undergraduate programs across multiple campuses, allows students to choose on an ad hoc basis whether to attend lectures in the lecture theatre on their respective campuses and/or to listen to synchronous webcast recordings of these lectures or asynchronous recordings or podcasts. Historically, lecturers have viewed recordings as supplemental to the face-to-face lectures – to be used for review and to allow our students, especially those from non-English speaking backgrounds, the opportunity to invest more time in understanding the lecture material (Preston, 2010). We have also provided recordings as support materials for those students who occasionally need flexibility of attendance because of distance away from campus, work and family responsibilities (Enterprise Marketing and Research Services Pty Ltd, 2003). In our units, lecture attendance has never been compulsory, but it has been an expectation. To date, most online offerings are recordings of the lecture delivered in the lecture theatre.

In light of our institutional shift in emphasis to the provision of choice in place and type of learning experience (Brown et al., 2013), the suitability of these recordings as a substitute for, rather than a supplement to, lecture theatre attendance needs to be reconsidered and the preferences and motivations of our students should inform this curriculum renewal, particularly given the enrolled cohorts. For example, compared to typical undergraduate students in Australia (Australian Bureau of Statistics, 2013), our 2013 first year Bioscience cohort were older, with a higher proportion of females, a lower proportion of recent school leavers, and a higher percentage undertaking a full-time load (Thomas McCarroll-Chester, personal communication, July, 2014). It is reasonable to assume that, like most full time undergraduate students in Australian universities (James, Bexley, Devlin, & Marginson, 2007), they were undertaking considerable paid employment. In 2013, 28% of our first year students were born overseas and half of these indicated they spoke a language other than English at home (Thomas McCarroll-Chester, personal communication, July, 2014). These statistics support anecdotal evidence that our students have complex individual and family circumstances to balance with their academic studies.

Given that many of our students need to prioritise their time around study, paid employment, and family, we, as a teaching team, were intrigued to observe that many still chose to attend the lecture theatre and we wondered what factors determine that choice. In this research we sought to identify student preference and frequency of use of face-to-face lectures, and/or synchronous and asynchronous lecture recordings; the factors that underpin their individual preferences and choices; and the perceived value of the different modes of delivery to their learning with a view to the implications for our future practice.

Methods

We employed a mixed methods design (Creswell, 2003) because we considered this approach was the most reliable way to obtain useful answers to our research questions. Data was collected in an anonymous online survey. The inclusion of both qualitative and quantitative items in the survey provides complementarity (Greene, Caracelli, & Graham, 1989) in which the data from one method is used to clarify or elaborate the data from the other. The 26 item survey included questions covering demographic details, use of social media, questions about usage of different modes of lecture delivery, reasons for using particular modes and reasons for not using particular modes. Email invitations to 596 students enrolled in a first year unit taught across the 4 campuses after week 10 of a 13 week semester contained a brief description of the aims of the research and a web link to both the Respondent Information Sheet and the online survey. Consent was implied by the completion of the survey. The research was approved by the Tasmania Social Sciences Human Research Ethics Committee (Ethics Ref No: H0013419).

Frequency distributions were calculated for questionnaire items requiring categorical and rating responses and categorical variables were compared using the Chi-square test to identify differences. Where differences were evident, ordered logistic regression (Stata Version 13, StataCorp Texas, USA) was used to illuminate the nature of relationships between mode usage and each of the demographic factors (age, gender, commuting time and primary language). Significant differences ($p < 0.05$) are reported as odds ratio (OR) and 95% confidence interval (CI), when the other demographic factors were accounted for.

Qualitative data reduction (Onwuegbuzie & Teddlie, 2003) was completed manually as a group activity. Using thematic analysis (Braun & Clarke, 2006) we generated initial codes by working systematically through the data to “identify interesting aspects in the data items that may form the basis of repeated patterns” (Braun & Clarke, 2006, p18). The development of overarching themes from the codes was an iterative process that began as a group exercise while we were doing the initial coding and continued individually. The themes were then reviewed as a group and displayed to ensure that all identified codes were coherent and meaningful. Illustrative quotes were selected and reported by respondent ID number.

Findings and Discussion

Of the 596 invitees, 136 (23%) responded. Twelve responses were discarded due to non-completion of responses beyond demographic details. Of the remaining 124 respondents the 22% male/78% female, was representative of the gender balance in the enrolled cohort. On average, the respondents were older than the unit cohort, with 66% aged 24 or over. Twenty-four percent of respondents identified that English was not their primary language, substantially higher than the 14% indicated by the entire cohort on enrolment (Thomas McCarroll-Chester, personal communication of institutional statistics, July, 2014).

Patterns of use for each lecture mode is illustrated in Figure 1. The finding that 68% of respondents attended face-to-face lectures for almost all or the majority of their scheduled lectures and that less than 8% of students reported that they never attended face-to-face lectures is consistent with previous research (Chester et al., 2011; Copley, 2007; Fitzpatrick, Cronin, & Byrne, 2011). However, this finding is contrary to the anecdotal estimates of attendance made by lecturers in this unit who reported attendance rates of between 40 – 60 % and may be an artefact of the low response rate and the possibility that those students who attend the lecture theatre regularly are also the students most likely to respond to a unit survey. The only demographic variable that significantly influenced regular attendance at the

lecture theatre was age, with 30-40 year olds attending less regularly than those aged 18-25 (OR=3.27, CI:1.11 – 9.70).

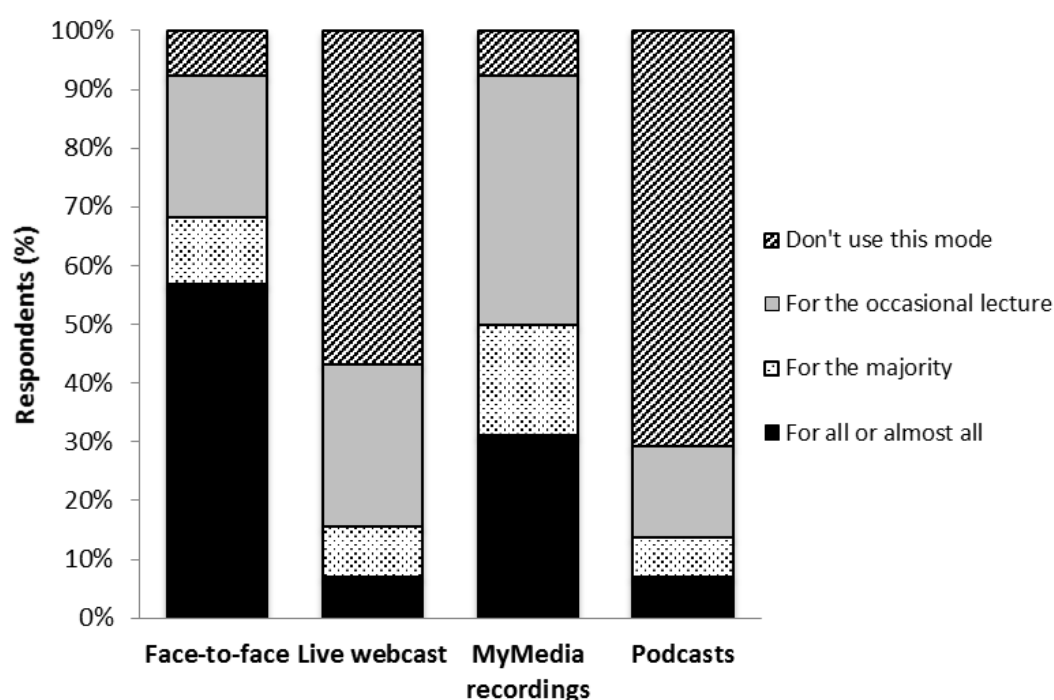


Figure 1 Patterns of Use

Almost 50% of respondents reported that they listened to asynchronous MyLO Media recordings for all or the majority of their lectures with 43% reporting that they listened to MyLO Media recordings occasionally. Significant influences were evident with those in the 30-40 age group (OR= 0.27, CI:0.09 – 0.79) more likely to use recorded lectures, and those with English as an additional language (OR=4.03, CI=1.61–10.06) or commuting distance of 2 or more hours (OR=0.19, CI=0.06–0.67) more likely to use them regularly. Only 7% of respondents reported that they never use MyLO Media lecture recordings.

Preston et al (2010) suggest that WBLT can be effective tools when their purpose is to support one way information transfer in traditional lectures and in terms of that information transfer, it may be just as effective for students to listen to lecture recordings rather than attend lectures (McKenzie, 2008). However, our results suggest that the majority of students do not choose recorded lectures as a regular replacement or substitute for traditional face-to-face lectures, perhaps not seeing them as effective tools for their learning. Instead, they opt to attend the lecture theatre and access asynchronous lecture recordings, and regularly do both for a specific lecture.

Synchronous webcasts were not popular with only 17% of the respondents reporting regular use, with similar results for podcasts. Combined, just over 10 percent of respondents indicate these modes as their choice for all or almost all lectures, a small percentage but if this was extrapolated to the entire cohort this would equate to more than 60 students. Qualitative data suggested that the low take up rate for podcasts was due to students being unaware of the podcast option and not knowing how to use it, suggesting that similar to the findings of Engstrand and Hall (2011) in their research on the use of streamed lectures, for podcasting to

be an effective form of WBLT students need to be made aware of the its existence and training in effective use of the technology should be made available.

The qualitative survey responses suggest that both pedagogical and pragmatic factors drive students' choice and use of lecture 'place'. Individuals' pedagogical considerations include the effects the physical and human aspects of the learning 'place' have on learning and the perceived best match between learning place and learning preference or style. Many respondents identified the social interaction that occurred in face-to-face lectures as beneficial to their learning. Pragmatic reasons for choice of place include perceived benefits to time and cost, accessibility and flexibility of time and location and technical issues related to the online environment.

Pedagogical Factors: Physical aspects of the learning 'place'

Aspects of the physical space and place of the learning environment influenced respondents' choice of place for lecture access and many linked these aspects to their learning. For some, choice of lecture place, either face-to-face or online, depended on the level of comfort and their ability to focus. Respondents who preferred face-to-face lectures commented that it was helpful to separate the learning space from their home environment because of the distractions at home, *"I find it easier to concentrate when I sit in the lecture theatre than at home where there are more distractions."* (ID 77)

Equally, respondents indicating a preference for the online environment identified this as a comfortable 'place' for learning with minimal distractions. For example, some students commented negatively on the lecture theatre space as *"too crowded"* (ID 125) and were *"distracted by the people"* (ID 125) around them while access to MyLO media recordings enabled others to learn in the *"comfort of (their) own home in bed in my PJs if I want."* (ID 60)

Respondents valued that, in the face-to-face environment, lecturers were able to add value to the lectures by using other resources in the learning place. Some felt that by *"Listening online you miss any added content such as demonstrations and drawings"* (ID14) done, for example, on the whiteboard. For us, this highlighted the inadequacy of our current technologies and our limited abilities and training in the seamless integration of the tools and technologies available to us now and potentially available to us should we seek them out.

Pedagogical Factors: Human aspects of the learning 'place'

Our respondents' comments also suggested that their choice of learning place was influenced by the benefits derived from interaction with the teacher and their peers and by the ways in which the chosen learning place aligned with their individual needs as learners.

Benefits to the learners

Research by McKinlay (2007) found that attendance at lectures had a positive effect on motivation and comments by our respondents also suggested that a commitment to attend the lectures on campus motivated their study and enabled focused learning. Lecture theatre attendance seemed to provide extrinsic motivation, *"it keeps me disciplined. If I do not have a lecture I am expected to turn up to, I find it difficult to motivate myself to watch it at home."* (ID 8)

Respondents who preferred to listen to recorded lectures identified such benefits to their learning as *"being able to do things in my own time"* (ID60), *"allows me to learn at my own*

pace” (ID48) and “*being able to do the required reading before listening.*” (ID75), highlighting value that these students placed on being in control of both the time and pace of their learning. The online environment was also valued because, “*It’s great to be able to stop part way through a lecture when you realize you have stopped paying attention and then come back to it*” (ID125), which allowed them to monitor their concentration levels and optimise their notetaking, I “*can pause the lecture when I can’t keep up.*” (ID60)

Similar to other research (Chester et al., 2011; Scutter, Stupans, Sawyer, & King, 2010), respondents comments suggested that another predominant reason for their use of recorded lectures was the benefit of being able to review the lecture material as often as the needed for understanding. For example “*I find it beneficial to be able to review certain parts I didn’t quite understand*” (ID 6) or (the lecture recording)... “*Gives you and opportunity to go back over the lectures to learn more.*” (ID 92). The asynchronous availability of lecture was also identified as of particular value as a way to “*revise before exams and revisit the material.*” (ID107)

Some respondents who attended face-to-face lectures indicated that they chose to do so because it was the best way for them to learn. Some found it “*easier to understand what is being delivered*” (ID138), that it enabled them to “*retain knowledge better*” (ID115) and that they found it “*easier to concentrate when I sit in a lecture*” (ID 77). One respondent identified that “*as a visual learner it is easier to grasp (material in lectures) because the lecturer uses the whiteboard to explain things.*” (ID 31), highlighting again our focus on the face-to-face experience and our failure to consider that students may wish to use the recordings as a substitute for that experience. Overall, our results suggest that the majority of students saw value in both the face-to-face and online learning ‘place’ and so do not choose recorded lectures as a replacement or substitute for traditional face-to-face lectures but instead choose to “*combine face-to-face and recordings for better understanding.*” (ID6). But, given the comments about aspects of the lecture delivery that were not translating to a positive experience online, if academic staff made better use of the available technologies and had more training and experience in using them these choices may change.

Influence of the teacher

Druger (2003) notes that it is not the information presented in lectures but the experience of attendance which is important for learning. Part of that experience is interaction with teaching staff. As a teaching team we have a philosophy that focuses on nurturing students (Pratt, Collins, & Selinger, 2001) and we believe that each lecture provides a crucial opportunity for personal contact with lecturers and peers. Our students seem to agree, with respondents preferring to attend lectures face-to-face because they found it “*more personal*” (ID 69) and that the “*physical presence is beneficial*” (ID 93) or that they “*like to see the person teaching*” (ID 66) and enjoy “*getting to know...(the) lecturer*” (ID 129). Comments suggested that human aspect of the learning place increased the level of engagement in learning and that they were “*much more likely to be engaged with the lecture in person than if it is simply prerecorded on my laptop.*” (ID 128)

The personal connection with the lecturer, for some students, translated into a sense of obligation and they felt that “*attending a lecture someone has taken the time to be there to teach me is far more important than just listening to lectures online.*” (ID 25) Others were more pragmatic, attending lectures because they were “*kept up to date with housekeeping information*” (ID 42) and got “*additional information delivered on topics through discussion.*” (ID143)

The quality of the interactions with lecturers was also an influence, with students attending the lecture theatre because the *“lecturer is engaging and enthusiastic”* (ID42) and finding it helpful when the *“lecturer puts it in simpler terms”* (ID 31) According to one respondent: *“Recorded lectures are boring and unanimated. Face-to-face, the teacher engages with the class, can go into more detail and reiterate parts people are obviously lost with.”* (ID8)

Similarly to Copley (2007), we found that our respondents who attended face-to-face lectures valued the ability to ask questions to clarify their understanding and the immediacy of the response to those questions. This is reflected in comments such as *“I feel I can learn better if I can ask questions and seek clarification face-to-face.”* (ID 88) and *“... I can ask questions to the lecturer and receive an instant response.”* (ID7).

Influence of peers

The benefits from interactions with their peers featured strongly in the comments from respondents who attended face-to-face lectures. These students appreciated that, for them, learning is a social activity and that being together with their peers had many benefits. One such benefit was that attending *“face-to-face lectures helps me feel like a student as I interact with other students.”* (ID144), suggesting that being in a group positively affected their identity as a student.

Comments such as *“When I am in face-to-face lectures I feel more involved in the class and can participate with discussion.”* (ID11), *“I can participate with other students and test my understanding.”* (ID55) and *“I also find that attending face-to-face lectures more social and being able to talk about lecture content afterwards.”* (ID21) suggest that, for some students, being in a group increased interaction and participation in collaborative learning.

Some students described benefits to personal relationships from learning together in a lecture theatre. For one respondent it *“gives university a (sense of) community”* (ID9) while others valued *“making lifelong friends”* (ID49) or *“meeting friends”* (ID 142) and *“having fun.”* (ID8)

Pragmatic Factors: time, cost and technology

Time management was a common theme evident in responses from both those who preferred face-to-face and those who preferred to listen to lectures online but the rationale varied. Comments such as *“It helps to have the time for the lecture blocked out for that purpose, rather than trying to fit the lectures in at other times during the week”* (ID 14)” and *“Time management reasons – if I am at uni I will do the work and be less likely to be distracted”* (ID110) highlighted that those who attended lectures recognised a benefit in having timeframes imposed on them.

Our qualitative data also supports the view that WBLT can be effective tools for increasing accessibility and flexibility for students who cannot attend for bona fide reasons such as sickness, distance from campus, work commitments, and family or other personal reasons, (Gosper et al., 2010; Preston, 2010) with many respondents citing these reasons for use of lecture recordings as a substitute for lecture theatre attendance. Fifty eight percent of the respondents in this study lived within one hour travel from campus, 30% lived 1 - 2 hours away and 12% took over two hours to travel to campus. Comments from respondents such as *“ it is more convenient to watch online than to spend 2.5 hours commuting each way to*

attend a lecture.” (ID 30) and *“Saves me a lot of money on petrol.”* (ID 48) highlights that saving time and money was a prime reason for substituting online for face-to-face attendance.

Respondents who chose asynchronous recordings for their primary learning mode gave reasons related to accessibility and flexibility such as *“easier to manage time with other commitments of work and family”* (ID 2) and *“MyMedia (recordings) can be made available wherever I wish...even while travelling.”* (ID 114). They also commented that the technology enhanced their learning as they could *“watch them at a faster speed”* (ID141) which was a more efficient use of their time and could *“keep them all in iTunes rather than having to log into MyMedia.”* (ID75) Students using podcasts commented that *“Podcasts take up download at home”* (ID115) but valued them because they were portable and *“you can listen anytime and anywhere.”* (ID120).

Issues with technology featured in comments from respondents who preferred face-to-face lectures. Online recordings were seen as often unreliable and with poor quality audio so *“attending face-to-face eliminates the risk of problems with lecture recording.”* (ID 15)

Conclusions and implications

Our students make active choices about their place of learning for a wide variety of pedagogical and pragmatic reasons. They are aware of their learning preferences and make choices about ‘place’ to meet their learning needs, while still considering pragmatic factors of time and cost when making final decisions. However, our current teaching practices and the available method of recording live lectures, is probably not conducive to providing choices of equal quality and equal value in the online environment. On the basis of our students’ comments about the value they place on attending the lecture theatre to engage with peers and teachers in their learning experiences, we would be wise to enhance our teaching in the lecture theatre to further increase interaction between attendees, whilst exploring ways in which these experiences can better translate to the online space. The Institutional plan for operationalising the vision for blended learning is still in its infancy and should be informed by studies such as this – situated within the institution, reflecting the student voice of the institution and identifying the strengths and limitations of the available technology. McIntyre (2014) urges academics to consider the notion of disruptive innovation to explore and implement solutions in learning and teaching practice to ensure inclusivity and quality and this perhaps will be our direction.

We concur with Milne (2007, p 14) who, in his vision for the design of the learning places of the future advises that:

at a basic level, all learning results from interaction whether they be with aspects of the environment, with information, with other people, or through some combination of these. Applying the concept of interactivity to the real world means creating environments that will preserve the richness of interactions that are not technology mediated and to allow these interactions to co-exist with those that are technology mediated.

Limitations of the study

The qualitative data provides a worthwhile snapshot of student preferences and uses for different modes of lecture delivery in our particular context, however the low response rate, the age of our respondents and the proportion of English as primary language respondeents

reduces the likelihood that the sample size is representative of the entire cohort, limiting the generalisability of the results.

Reference list

- Australian Bureau of Statistics (2013). Hitting the Books: Characteristics of Higher Education Students. Accessed July 21, from <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4102.0Main+Features20July+2013>
- Bongey, S. B., Cizadlo, G., & Kalnbach, L. (2006). Explorations in course-casting: Podcasts in higher education. *Campus-wide information systems*, 23(5), 350-367.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- Brown, N., Kregar, G., & Williams, G. (2013). Technology Enhanced Learning and Teaching White Paper. Retrieved August 3, from www.teaching-learning.utas.edu.au/news/news/telt-white-paper.
- Chester, A., Buntine, A., Hammond, K., & Atkinson, L. (2011). Podcasting in Education: Student Attitudes, Behaviour and Self-Efficacy. *Educational Technology & Society*, 14(2), 236-247.
- Collier-Reed, B. I., Case, J. M., & Stott, A. (2013). The influence of podcasting on student learning: a case study across two courses. *European Journal of Engineering Education*, 38(3), 329-339.
- Copley, J. (2007). Audio and video podcasts of lectures for campus-based students: production and evaluation of student use. *Innovations in Education and Teaching international*, 44(4), 387-399.
- Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*: Sage.
- Dahlstrom, E., Walker, J., & Dziuban, C. (2012). ECAR study of undergraduate students and information technology, 2012. Boulder, CO: Educause Center for Applied Research.
- Davis, E. A., Hodgson, Y., & Macaulay, J. O. (2012). Engagement of students with lectures in biochemistry and pharmacology. *Biochemistry and Molecular Biology Education*, 40(5), 300-309.
- Dolnicar, S. (2005). Should we still lecture or just post examination questions on the web?: The nature of the shift towards pragmatism in undergraduate lecture attendance. *Quality in Higher Education*, 11(2), 103-115.
- Dommeier, C. J., Baum, P., Hanna, R. W., & Chapman, K. S. (2004). Gathering faculty teaching evaluations by in-class and online surveys: their effects on response rates and evaluations. *Assessment & Evaluation in Higher Education*, 29(5), 611-623.
- Druger, M. (2003). Being There: A Perspective on Class Attendance. *Journal of college science teaching*, 32(5), 350-351.
- Engstrand, S. M., & 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.
- Enterprise Marketing and Research Services Pty. Ltd. (2003) *The Impact on Students of Flexible Teaching and Learning at the University of Tasmania Report*. Accessed 21st July from http://www.teachinglearning.utas.edu.au/_data/assets/pdf_file/0015/1086/Flexible_T-and-L_Impact_report.pdf
- witEvans, C. (2008). The effectiveness of m-learning in the form of podcast revision lectures in higher education. *Computers & Education*, 50(2), 491-498.
- Fitzpatrick, J., Cronin, K., & Byrne, E. (2011). Is attending lectures still relevant in engineering education? *European Journal of Engineering Education*, 36(3), 301-312.
- Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *The Internet and Higher Education*, 7(2), 95-105.
- Gosper, M. (2008). *The impact of web-based lecture technologies on current and future practices in learning and teaching*: Australian Learning and Teaching Council.
- Gosper, M., McNeill, M., Phillips, R., Preston, G., Woo, K., & Green, D. (2010). Web-based lecture technologies and learning and teaching: a study of change in four Australian universities. *Research in Learning Technology*, 18(3).
- Gosper, M., McNeill, M., Woo, K., Phillips, R., Preston, G. and Green, D. (2007) Web-based Lecture recording technologies: Do students learn from them? In EDUCAUSE 2007: The Best Thinking in Higher ED IT, 23-26 October, Seattle, WA
- Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Toward a conceptual framework for mixed-method evaluation designs. *Educational evaluation and policy analysis*, 11(3), 255-274.
- Green, S. M., Voegeli, D., Harrison, M., Phillips, J., Knowles, J., Weaver, M., & Shephard, K. (2003). Evaluating the use of streaming video to support student learning in a first-year life sciences course for student nurses. *Nurse Education Today*, 23(4), 255-261.

- Gysbers, V., Johnston, J., Hancock, D., & Denyer, G. (2011). Why do Students still Bother Coming to Lectures, When Everything is Available Online? *International Journal of Innovation in Science and Mathematics Education (formerly CAL-laborate International)*, 19(2).
- James, R., Bexley, E., Devlin, M., & Marginson, S. (2007). *Australian University Student Finances 2006: Final report of a national survey of students in public universities*. Australian Vice-Chancellors' Committee.
- Kelly, G. E. (2012). Lecture attendance rates at university and related factors. *Journal of Further and Higher Education*, 36(1), 17-40.
- Kennedy, G. E., Judd, T. S., Churchward, A., Gray, K., & Krause, K.-L. (2008). First year students' experiences with technology: Are they really digital natives. *Australasian Journal of Educational Technology*, 24(1), 108-122.
- Leadbeater, W., Shuttleworth, T., Couperthwaite, J., & Nightingale, K. P. (2013). Evaluating the use and impact of lecture recording in undergraduates: Evidence for distinct approaches by different groups of students. *Computers & Education*, 61, 185-192.
- Maag, M. (2006). Podcasting and MP3 players: Emerging education technologies. *Computers Informatics Nursing*, 24(1), 9-13.
- Massingham, P., & Herrington, T. (2006). Does attendance matter? An examination of student attitudes, participation, performance and attendance. *Journal of University Teaching & Learning Practice*, 3(2), 3.
- McIntyre, S. (2014) Reducing the digital literacy divide through disruptive innovation. *HERDSA Review of Higher Education*, 1, herdsa.org.au.
- McGarr, O. (2009). A review of podcasting in higher education: Its influence on the traditional lecture. *Australasian Journal of Educational Technology*, 25(3), 309-321.
- McInnis, C., & Hartley, R. (2002). Managing study and work: The impact of full-time study and paid work on the undergraduate experience in Australian universities. Canberra: Department of Education, Science and Training.
- McKenzie, W. (2008). Where are audio recordings of lectures in the new educational technology landscape. *Hello! Where are you in the landscape of educational technology? Proceedings Ascilite Melbourne 2008*, 628-632.
- McKinney, A. A., & Page, K. (2009). Podcasts and videostreaming: Useful tools to facilitate learning of pathophysiology in undergraduate nurse education? *Nurse education in practice*, 9(6), 372-376.
- McNeill, M., Woo, K., Gosper, M., Phillips, R., Preston, G., & Green, D. (2007). Using web-based lecture technologies: Advice from students. Paper presented at HERDSA conference, Adelaide, Australia
- Milne, A. J. (2007). Entering the interaction age: Implementing a future vision for campus learning spaces. *Educause review*, 42(1), 12-31.
- Onwuegbuzie, A. J., & Teddlie, C. (2003). A framework for analyzing data in mixed methods research. *Handbook of mixed methods in social and behavioral research*, 351-383.
- Parson, V., Reddy, P., Wood, J., & Senior, C. (2009). Educating an iPod generation: undergraduate attitudes, experiences and understanding of vodcast and podcast use. *Learning, Media and Technology*, 34(3), 215-228.
- Pham, J. (2010). *A Case Study of Classroom Podcast in Ohlone Community College*: ERIC.
- 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.
- Pratt, D. D., Collins, J. B., & Selinger, S. J. (2001). *Development and use of the Teaching Perspectives Inventory (TPI)*. Paper presented at the American Educational Research Association Annual Meeting, Seattle, WA.
- Preston, G. (2010). Web-based lecture technologies: Highlighting the changing nature of teaching and learning. *Australasian journal of educational technology*, 26(6), 717.
- 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.
- Von Konsky, B. R., Ivins, J., & Gribble, S. J. (2009). Lecture attendance and web based lecture technologies: A comparison of student perceptions and usage patterns. *Australasian journal of educational technology*, 25(4), 581-595.
- Wiese, C., & Newton, G. (2013). Use of lecture capture in undergraduate biological science education. *The Canadian Journal for the Scholarship of Teaching and Learning*, 4(2), 4.
- Williams, J., & Michael, F. (2007). 'Perpetual Connectivity': *Lecture Recordings and Portable Media Players*. Paper presented at the World Conference on Educational Multimedia, Hypermedia and Telecommunications.

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