Why don't students attend lectures and what can be done about it through using iPod nanos?

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How can teachers encourage students to listen in lectures – and indeed to attend them? What about international students and those who have language difficulties? These were the questions which triggered a study of the beliefs of first year students about learning from lectures, and a desire to improve students' ability to learn from lectures through providing MP3 uploads and a classroom set of iPod nanos. Students completed a pre- and post-course evaluation which revealed their beliefs about lecture attendance and supplementing that attendance by listening to lectures on iPods for revision and re-listening.

Keywords: contemporary challenges, personalised learning, iPods, audio streaming, educational evaluation, mLearning, teaching and learning strategies

Introduction

Often lecturers observe a gradual slide to lecture non-attendance by undergraduate students as the academic year unfolds and their good intentions regarding lecture attendance (Crisp 2006) are undermined by their busy lives (Krause, Hartley, James & McInnis, 2005), or possibly what they see as a marginally useful learning environment (Wood & Burke de Silva, 2006). Non-attendance may disadvantage those students as well as depress lecturers who have prepared an engaging and interactive session (Wood & Burke de Silva, 2006). Despite the ability to upload lecture notes and PowerPoints from course websites (LMS) for anywhere, anytime retrieval, this "self-lecture" is not the same as hearing the lecturer deliver the lecture with the vocal emphases therein (synchronising audio and Powerpoint is not easy.) In 2006, in light of Australian evidence about pressure on first year students (Krause et al., 2005) I realistically abandoned the expectation that students would necessarily attend all lectures, and made robust provision for those who did not attend (even in a poorly resourced school where technology was not in place for audio or video lecture streaming). This paper presents an educational evaluation which uncovers students' reasons for non-attendance at lectures, and evaluation results which show that students believe it is important to attend lectures (87.5%) and even more important (92.5%) to get the information from lectures (whether they attend them or not).

Mellow (2005) asserts that in educating the mobile net generation (born after 1982), the so called "Gen Y", "institutions should consider some form of mobile delivery to attend to new students" – "mLearning". Duke University selected iPods to deliver content to all first year students in 2004 (Duke, 2004 in Mellow, 2005) as did Drexel University in 2005 (Perlman, 2005 in Mellow, 2005). The pilot study at the University of Adelaide built on these initiatives whilst mindful that "mLearning" is a subset of all learning within a blended learning environment, and is a means to enhance the broader learning experience – not a primary means to deliver courses. It is a powerful method for engaging learners on their own terms – especially "for those groups of learners who cannot participate in classroom learning for whatever reason" (Valentine, 2004 in Mellow, 2005).

Students in a Semester 1, Year 1 compulsory 6 unit bearing course "Human Environments" were the subjects for this study. There were two lectures per week and four hours of scheduled Workshops (2) and Tutorials (2). The face-to-face lectures were audio taped and uploaded to the course website (LMS) for audio streaming as well as converted to MP3 files for uploading to MP3 players. A class set of iPod nanos was purchased and made available for free loan which 24 students availed themselves of (23%). Many students in the class already possessed an MP3 player (25) or an iPod (19) so there was reasonable penetration of 69% of the class having MP3 playing equipment. Students were able to access the twice-weekly lectures in an online environment within a day (audio files) to a week of delivery (for MP3 files).

The research questions concerned students' use of the audio streaming and MP3 facilities to listen to lectures and their beliefs about the importance of attending lectures and the reasons for non-attendance. The pilot "nano" project was to be evaluated in terms of value adding to students' learning outcomes – judged by did they use this technology? And did they see a benefit in the provision of the technology to them?

Method

During Orientation Week, prior to the commencement of semester, students were asked to complete an anonymous online Design Studies questionnaire that posed questions about students' familiarity with IT and the online design environment. A response rate of 68% (71/105) was achieved. They also answered an anonymous university-wide questionnaire about their expectations of university (Crisp, 2006).

At the end of Semester students were asked to complete an anonymous paper-based SELT questionnaire. Questions were posed about students' satisfaction with the course and their attitudes to learning in the course. A response rate of 81% (85/105) was achieved, which is generalisable. The anonymous open-ended responses were coded and analysed by the researcher. Codes are available on request. A head count was conducted each week in lectures with attendance ranging from 40% to near 100%.

Results

Table 1: Commencing student details, familiarity with computers & the online environment

Question	Overall Response Rate 71/105 = 68%		
Are you a school leaver? Y/N	Count 69	45 Yes	24 No
How old are you? Age	Count 70	Average age 19.3*	
What sex are you? M/F	Male 40		Female 31
What internet connection do you have at your term-time residence? None, Dial-up modem, Broadband	Internet Connection 64 / 71 respondents None 7 Dial Up 23 Broadband 41		
Do you have iPod, Other MP3 player, Both, Neither?	iPod 19 Other MP3 25		Both 4 Neither 23
	Mean 7 point Likert scale where 1= never used it and 7 = thoroughly familiar	No and % of respondents who scored 5–7 on Likert scale	No and % of respondents who scored 2–7 on Likert scale [showing some familiarity]
How familiar are you with using a PC (personal computer)?	4.8	48/71 (68%)	71/71 (100%)
How much experience do you have with electronic mail (e-mail)?	5.1	56/70 (80%)	70/70 (100%)
How familiar are you with the World Wide Web as a USER (browsing)?	5.7	57/71 (80%)	71/71 100(%)
How familiar are you with the World Wide Web as a web site creator?	1.2	5/71 (7%)	21/71 (30%)
How much experience do you have with internet messaging (e.g. MSN)?	4.6	48/71 (68%)	66/71 (93%)
How much experience do you have with pod-casting?	0.6	2/71 (3%)	8/71 (11%)

Note. * excludes one 49 year old.

Students commencing the course reported overall familiarity with computers and the online environment. Surprisingly for the "net generation" they are inexperienced with pod-casting, despite 44 students already

owning MP3 players. Students' end of semester evaluations (Table 2) reveal that students are satisfied with their course (92%) and 96% report their ability to work independently being increased whilst 99% of respondents agreed that they understood the concepts presented in the course. However 19% report motivation difficulties.

Table 2: Students' post-course evaluation SELT

Question Overall Response rate 85/105 = 81%	Mean 7 point Likert scale: 1= strongly disagree; 7 = strongly agree	No and % of respondents who scored 5-7 on Likert scale
Overall I am satisfied with the quality of this course	5.7	78 (92%)
The course stimulates my enthusiasm for further learning	5.8	76 (89%)
It is made clear what is expected of me	5.6	74 (87%)
I am motivated to learn in this course	5.4	69 (81%)
This course helps me to develop my thinking skills	5.7	76 (89%)
My ability to work independently is being increased	5.9	80 (96%)
I understand the concepts presented in this course	5.9	79 (99%)
I attended all the lectures in the course	5.7	64 (80%)*
I believe attending lectures is important	5.9	70 (87.5%)
I believe getting the information from lectures is important (whether you attend them or not)	6.1	74 (92.5%)
I listened to the lectures online with audio streaming	3.5	24 (33%)
I listened to the lectures online with MP3 podcasts	3.2	21 (29%)

Note. *See text below for explanation.

Triangulation of data reveals that 60% of students (63/105) did not attend all lectures (43/105 responded to the question "If you missed any lectures, why was that?" with reasons for non-attendance and 20 were absent on the day of the survey). However 87.5% of students believe attending lectures is important and 92.5% believe getting the information from lectures is important (whether you attend them or not).

Discussion

Forty three reasons given in the open-ended responses for lecture non-attendance ranged from family and personal issues (mentioned by 22 respondents) including illness (14) to the next most prevalent reason university workload (7). Five students mentioned lack of motivation and paid employment was also mentioned five times. Timetabling was mentioned three times and time management twice. Only twice was the ability to listen online to lectures mentioned at the same time as lack of attendance, but on both occasions students said they would have missed the lectures anyway regardless of alternative means for lecture access due to paid employment and travel difficulties.

The provision of an alternative means for "getting the information from lectures" is seen as important to lecturer and students. Twenty nine percent listened to pod-casts and 33% listened to lectures with audio streaming.

Students were then asked "Do you think there are benefits to you of having lectures audio streamed and available as MP3 uploads?" to which 71 students responded. Twenty students simply answered "Yes", whilst 21 students said that the pod-casts and audio streaming were an adjunct to attending lectures: "Yes, in the case of students missing lectures or wanting to revise for the end of Semester by listening to lectures". Twelve students remarked about the reflection/revision/re-listening opportunities provided for their learning: "Yes. Sometimes we may miss some points in the lectures and the lectures audio streamed and available as MP3 downloads let me re-listen and jot down the notes fully." Three students who said that they did not use them nevertheless thought that they were beneficial: "I don't personally listen to them but I think other students may find them beneficial and it's good to have them there just in case". Two students mentioned anywhere/anytime learning "Yes, we can rethink the lecture usually while on the bus etc when you wouldn't normally be concentrating on anything" and two that there were benefits for international students: "Also international students can taken their time with it in case they don't

understand it the first time". Other points made were that video streaming is preferable to audio streaming (2) although Wood & Burke de Silva (2006) found that this led to major reduction in lecture attendance; that listening to lectures is easier to follow than viewing PowerPoint slides (1) and that problems with technology prevented the students from uploading the files (2). Importantly only one student reported that "it encourages students not to attend the lectures". Students were then asked for which activities they used the School's borrowed nanos. Responses revealed that students combined recreational usage – listening to music (10) – and listening to lectures (12) with file storage and transfer.

Conclusion

Students in this course received good grades with 2 High Distinctions, 30 Distinctions, 36 Credits and 24 Passes, despite 60% of students not attending all lectures, as a result of family, personal and other issues (including illness). Ninety two percent were satisfied with the course with 99% believing that they understood the concepts presented. Students remained engaged and enrolled, with only 9% not completing the course. Any opportunity to reinforce learning is seen as positive to the students with 89% of students declaring that there were benefits to them of having the lectures audio streamed and available as MP3 pod-casts, in particular as an adjunct to lecture attendance and for revision and re-listening.

References

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Acknowledgements

Bionotes

Dr Susan Shannon, of the School of Architecture, Landscape Architecture and Urban Design, The University of Adelaide, is an architect who is passionately interested in student learning, and how best to facilitate active learning outcomes, particularly for school leavers.

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