

An exploration re utilising inclusive technologies in the former School of Built and Natural Environment

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Title of Case Study – An exploration re utilising inclusive technologies in the former School of Built and Natural Environment

Abstract The aim of this action based research project is to enhance the student learning experience through the production of videocasts that focus on the conventions of academic writing in the former School of Building and Natural Environment (BNE) Glasgow Caledonian University. Vidcasts (using a blend of narrated audio and on screen images and slides) aim to meet students' individual academic writing requirements by taking cognisance that students are at different stages in their academic journey

The objectives were to produce models of good practice on the issues of academic writing conventions at four distinct levels. Each vidcast has links to additional support materials that are available on the internet. The videocasts have been placed on the virtual learning environment (VLE), Blackboard and are widely used as an online resource by students and staff in the new School of Engineering Built and Environment.

Equality and Diversity Principles Represented by this Case Study

Description of Implementation

A Vidcast or vodcast, contains audio and images, either moving or fixed (Traxler, 2008).

In what context does the practice happen?

The impetus for producing videocasts was directed by earlier research responding to students' concerns re accessing material from workshops that had been run by the former GCU's centralised Effective Learning Service. The workshops had good attendance but it is impractical to expect that every student can attend the workshops, furthermore it was not always feasible to repeat sessions or for students to meet individually with ELS staff. Although many students access ELS materials on line (4,595 used support guides on line 2008/2009) students commented that they wanted to access workshop material at a later date.

What was the rationale for introducing the practice?

We wish to encourage and aid students in becoming independent and effective learners. As such we acknowledge that the curriculum must be inclusive. It is widely accepted that students have different preferred learning styles (visual, reflective, auditory and kinaesthetic) but some times these differences are not accommodated fully in the Higher Education curriculum. Additionally, Coffield et al., (2004) carried out a detailed study evaluating the usefulness of learning styles theory, arguing it does not explain the complexity of lifelong learning (LLL). They argue instead that learning styles categorisations have limited value. Rather than a narrow, reductive focus on identifying styles of learning, they contend a more pertinent question concerning LLL, is why do some learners disengage with learning or even feel barred from the higher education establishments.

In recognition of this complexity and the wider socio – cultural dimensions impacting on LLL, we drew on academic literacies theory and practice. This takes account of the '...broader and more socially [derived] uses and meanings of literacy,' (Leung & Safford, 2005: 320) in the context of HE study; so facilitating an asynchronous method. We therefore adopted videocasts as podcasting would be appeal to auditory learners, whilst the visual prompts would support students with dyslexia. Essentially by students having to concentrate and apply active listening this would mean that they were cognitively involved.

How was the practice implemented?

Four videocasts have been placed on the VLE. The first vidcast focuses on an introduction to academic writing conventions by explaining, and illustrating how to write a paragraph at micro level, including the conventions of referencing. Animated sequences highlighted the various errors throughout the paragraph. The second vidcast explains how to plan, construct and write a report, including a detailed breakdown of appropriate material for each section of the report. The third vidcast concentrates on features of group report writing and examines some of the issues that may occur when individuals are working together on one task. The fourth vidcast is aimed at postgraduate students and demonstrates how to execute a complex report, applying a case study format. This approach blends the narration and the visual representation shown on the screen to emphasise the point to the viewer. Each vidcast has related links to additional reputable support materials that are available on the internet.

What resources were needed?

Vidcast creation: Portable digital voice recorders (audio), Microsoft PowerPoint (visual images), video editing software: iMovie.

Vidcast publication/distribution: Streaming media server (storage and distribution). Blackboard VLE (dissemination).

Discipline/Course/Subject Area:
Built and Natural Environment

Institution: Glasgow Caledonian University

Start date: 2010

Impact:

The practice was introduced:

school

No. of students affected: 400

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Perceived Benefits

For students...

Podcasting clearly appeals to auditory learners and with the addition of visual prompt the vidcast can also support dyslexic students with alternative strategies for engaging with and retention of information.

Clark and Walsh (2004 cited in Pandy 2009) state that listening is instinctive, whereas reading and writing requires to be learned.

The Informal Mobile Podcasting And Learning Adaptation (2006) Project noted that students had to concentrate and apply active listening when using podcasts for educational pursuits, rather than merely listening, as one does to music.

Our response: increased access to learning can also be achieved as students can choose when and where they wish to engage with the vidcasts and this approach enables students to revisit the material at their own pace, all contributing to self – directed learning opportunities.

Users with visual impairments can select to listen solely to the audio element and can even download the material on to their mobile device, plus all of the vidcasts have transcribed the audio components.

These strategies, we believe help to facilitate students' learning in accessible and empowering ways. This approach takes account of Grabinger's (2009:237) assertion, that learners are part of a '... continuum, with all students needing or preferring different kinds of instruction'

For teaching/support staff...

For teaching staff:

Saves time as once completed item can be reviewed and renewed at a time and location that suits the individual learner.

Available in a convenient format that can be played on most popular mobile devices.

The teaching member of staff involved in this project has limited knowledge re accessing material electronically, and the developer ensured that this process was easy both teaching staff and students to undertake.

Users must be able to access material and to that end students and staff were invited via focus groups and through questionnaires to comment and give feedback on the material re ease of access and usability.

For Support Staff:

Formats – Using MP4 video formats allowed us to use one file that could be accessible on both web browsers and mobile devices.

Embedding – Vidcasts were easily embeddable within VLE/webpages using a simple line of HTML code.

Issues/Challenges

For students...

Impossible to truly replicate the workshop in a virtual space.

Vidcasts do not contain interactive tasks. However, students are using these as resources and it is questionable how many students really take time to complete tasks if they are not formally part of their course work or being formally assessed.

As in all IT systems, there are always system and software compatibility issues.

Not all learners are digital natives (Prensky, 2001). Student may not wish to engage with this type of technology.

For teaching/support staff...

This project commenced three years ago and changed direction from its original inception. It is expected that the concept will evolve as new technologies become available, but it should always be remembered that this is merely a tool, fundamentally the teaching content has to be of good quality, otherwise the message is lost in transit.

The vidcasts' links need to be checked regularly to ensure that the links are still 'live'.

VLE's change, staff move within the institution and indeed leave and join the institution, and the examples applied need to appear relevant. This means that the teaching staff need to revise the material so that it does not appear to be stale or out dated.

The matching of the spoken to the visual is time consuming to produce, and care needs to be taken that the volume and tone is appropriate. Some staff are not comfortable using audio being taped and certain accents may be a barrier to students' comprehension.

Care needs to be taken that examples and vocabulary are inclusive for all students irrespective of level, whether they be international and or students with additional learning requirements.

Enablers that Helped the Case Study to Work

We received funding from Glasgow Caledonian University's Caledonian Scholar and Associates' Initiative which enabled us to attend conferences (both nationally and internationally), National special interest groups, support to buy equipment and time from our full time posts to undertake research & development. Our institution already had a digital media repository which allowed seamless delivery and integration of the vidcast resources throughout the university.

Points of Advice

It is important that the people involved are from different disciplines in that it is essential that a non IT lecturer is involved for the pedagogical approach and that the IT Support is approachable and that both work as a team on an equal basis. No matter how good /exciting the product, one always needs to remember the requirements of the end user. The student demographic does not always fit with the presumption that all students are digital natives. We found during our research that students' viewing preferences leaned towards viewing on the web as opposed to downloading and watching on a mobile personal device .Our perceptions changed in that initially we thought they would be keen to interact with such a mobile initiative material reality they liked to be in the 'study zone' i.e. the environment and time is right for the individual. Students have a preferred place to study whether that be in their home or in a university library.

External Commentary (related to either design, delivery or assessment)

Feedback from the Media Enhanced Learning - MELSIG (formally the HEA PPPSIG), the Scottish Effective Learning Association (SCotELAS) which represents academic staff across all of the Scottish HEI's. Focus groups and questionnaires via Survey Monkey and Poll Everywhere among selected class groups.

<p>Further Reading</p> <p>Relevant publications by those doing case-study:</p> <p>Edirisingha, P. Salmon, G. and Nie, M. (2008) "Developing pedagogical podcasts". In: G. Salmon and P Edirisingha, eds. <i>Podcasting for Learning in Universities</i>, Maidenhead: Open University Press, pp 154-168.</p> <p>Fox, R L. and Ronkowski, S. A. (1997). "Learning Styles of Political Science Students." <i>PS: Political Science and Politics</i> Vol 30. No 4.pp 732-37.</p> <p>Gerrard, C. Tweedie, S. and McVey, D. (2005) "Embedding effective learning skills in the curriculum: case studies and interventions" Paper presented at Centre for Research in Lifelong Learning Glasgow, Glasgow Caledonian University, June.</p> <p>Glasgow Caledonian University. (2010). <i>Overview of the Caledonian Scholars and Associates Initiative 2010</i>. Available: http://www.academy.gcal.ac.uk/professional/sanda.html. Last accessed 1 May 2011.</p> <p>Gribbins, M (2007) "The Perceived Usefulness of Podcasting in Higher Education: A Survey of Students' Attitudes and Intention to Use" [online] Proceedings of the Second Midwest United States Association for Information Systems, Springfield, IL. http://aisel.aisnet.org/mwais2007/6, May.</p> <p>Illeris, K. (2006) 'What is special about adult learning?' In: Sutherland, P and Crowther, J. eds. <i>Lifelong Learning</i>. London, Routledge, 15-24.</p> <p>Informal Mobile Podcasting And Learning Adaptation (2006) <i>IMPALA Project Website</i>. Available: http://www.le.ac.uk/impala/index.html Last accessed 10 December 2010.</p>	<p>Relevant/influential/related publications in the research literature suggested by the case study provider:</p> <p>References</p> <p>Cohen, L., Manion, L. and Morrison, K. (2007) 'Research Methods in Education' Routledge, London: Sixth ed.</p> <p>Coffield, F., Moseley, D., Hall, E., and Ecclestone, K. (2004) 'Learning styles and pedagogy in post-16 learning: a systematic and critical review.' Learning and Skills Research Centre, London.</p> <p>Fox, R. and Ronkowski, S.A. (1997) '<u>Learning Styles of Political Students</u>'. December, <i>Political Science and Politics</i>, Vol. 30, No. 4 (Dec., 1997), pp. 732-737.</p> <p>Grabinger, S. (2009) 'A Framework for Supporting Postsecondary Learners with Psychiatric Disabilities in Online Environments' Paper presented at the 8th <i>European Conference on e-learning Bari, Italy 29-30 October</i>, in D Remenyi (Eds.) ACI 2009 pp.236-243.</p> <p>Leung, C. and Safford, K. (2005) 'Nontraditional Students in Higher Education. In Literacies Across Educational Contexts.' <i>Mediating Learning and Teaching</i>, pp 303-324, Caslon Publishing, Philadelphia.</p> <p>Trinder, K., Guiller, J., Margaryan, A., Littlejohn, A., and Nicol, D. (2008). 'Learning from Digital Natives: Integrating formal and informal learning.' <i>Final project report. Higher Education Academy</i>, UK. [on line] Accessed from http://www.academy.gcal.ac.uk/ldn/LDNFinalReport.pdf. Accessed on 14 January 2009.</p>	<p>Reference to similar case studies in the project:</p> <p>Department of Hospitality and Tourism Management, Strathclyde University REAP Pilot Projects – Completion Report – June, 2007 REAP Completion Report 44128 'Introduction to Tourism' [on line] Available from http://www.reap.ac.uk/public/Report/SU_HTM_CR.pdf. (Accessed on 1 March, 2009)</p> <p>Lee, M. and Chan, A. (2007) 'Pervasive, lifestyle-integrated mobile learning for distance learners: an analysis and unexpected results from a podcasting study.' <i>Open Learning: the Journal of Open and Distance Learning</i>. Vol. 22. Issue 2 2007.</p> <p>Informal Mobile Podcasting And Learning Adaptation (2006) <i>IMPALA Project Website</i>. [on line] Accessed from http://www.le.ac.uk/impala/index.html. (Accessed on 18 January 2010).</p> <p>Traxler, J. (2008) 'Podcasting in Context'. In: Salmon G. and Edirisingha P (Eds.) <i>Podcasting for Learning in Universities</i>.pp.12-19.: Open University Press, Maidenhead.</p> <p>Wallace, I. and Donald, D. (2008). 'Spoken Word, Digital Libraries in the Classroom.' [on line] Accessed from: http://www.jisc.ac.uk/media/documents/programmes/dlitc/spokenwordfinalreport.pdf. (Accessed on 1 May 2009).</p>
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<p>Kern, R and Schultz JM. (2005) "Beyond Orality: Investigating Literacy and the Literary in Second and Foreign Language Instruction" <i>The Modern Language Journal</i>, Vol. 89, No. 3, Special Issue: Methodology, Epistemology, and Ethics in Instructed SLA Research, pp. 381-392.</p> <p>Lea, M. R. and Street, B, V.(2010) "The "Academic Literacies" Model: Theory and Applications" <i>Theory Into Practice</i>, Vol. 45, No 4, pp368-377.</p> <p>McAllister, C. and Shapiro, A. (2004) "<i>Developing learners at Glasgow Caledonian University: the Effective Learning Service response</i>", Paper presented at Forum for the advancement of Continuing Education Conference, July 2004.</p> <p>Rogers, A. and Uddin, M. A. "Adult Learning Theory and the Provision of Literary Classes in the Context of Developing Societies", in Street B (ed), <i>Literacies Across Educational Contexts</i>, pp235-260 Caslon Publishing, Philadelphia.</p> <p>Tardy, C.M (2005) "Its like a story': Rhetorical knowledge development in advanced academic literacy." <i>Journal of English for Academic Purposes</i> Vol 4, no 4 pp 325-38.</p> <p>Traxler, J. (2008) 'Podcasting in Context', in Salmon G and Edirisingha P (Eds), <i>Podcasting for Learning in Universities</i>, pp 12-19. Open University Press, Maidenhead.</p>	<p>Publications by the case study provider:</p> <p>Shapiro A, & Johnston A (2010) 'An exploration of feedback mechanisms' in Enhancement Themes Newsletter Volume 5, issue 2 December 2010. TiP zone - Themes in Practice Zone.</p> <p>Shapiro, A and Johnston A. 'From Workshop to Vidcasts: Reflections on Students' Learning' in Technology Enhanced Learning: Quality of Teaching and Educational Reform: 1st International Conference, TECH-EDUCATION 2010, Athens, Greece, May in Computer and Information Science) Technology Enhanced Learning: [Paperback] pp 244-251.</p> <p>Presentations of the work by the case study provider:</p> <p>Shapiro A, Johnston A & Nimmo A. (2010) 'Explain it to me': Feedback Mechanisms in the School of Building and Natural Environment, Glasgow Caledonian University." Presented at <i>9th European Conference on e-Learning</i> , University of Porto, Portugal, 3- 5 November 2010.</p> <p>Shapiro, A and Johnston, A. (2010) 'From Workshop to the Web: Reflections on the Journey in Producing Vidcasts to Enhance Student Technology Enhanced Learning, Presented at Athens May 2010 at First International Conference, TECH-EDUCATION 2010. Proceedings. Springer, Berlin.</p> <p>Shapiro, A & Johnston, A., (2009) 'Vidcasts for the self directed learner' Poster presented at <i>8th European Conference on e-Learning</i> , University of Bari, Italy 29-30, October, 2009.</p> <p>Shapiro, A. & Johnston, A. (2008) 'Vidcast on essay writing: a potential tool for assisting distance learning?' Demonstration to the ScotELAS Forum, <i>Supporting the Distance Learner</i>, Glasgow Caledonian University, 13 June 2008.</p>	
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Many thanks for contributing your case study. Please email the completed form to

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