Learning Highlights

Summer 2012

A Risky Business?

In June 2011 The Department for Business Innovation & Skills (BIS) published its Implementation Plan for Higher Education (1), which included a commitment to exploring the possibility of a Risk Based approach to Quality Assurance. This commitment was reflected in the White Paper, 'Students at the Heart of the System' (2) which stated the government intention to introduce Risk Based Regulation (RBR) to the Higher Education sector.

The influence of RBR in relation to publically funded organisations has grown substantially since BIS commissioned the 2005 Hampton Review, which strongly advocated the use of RBR (3). What distinguishes RBR from other regulatory frameworks is that, rather than a one size fits all approach to inspection, monitoring and audit, the demands placed upon individual organisations are determined by an assessment of their relative risk. For example an RBR approach to speed limit enforcement would concentrate monitoring and detailed requirements in areas

with a high level of speed related accidents and injury. RBR also allows for targeted cost savings with minimal risk to the quality of overall output and frees up organisations that perform well from administrative burden and regulatory constraints.

The argument in favour of RBR is that effort and public money is spent on those organisations most in need of improvement, while high performing organisations are freed up to develop and explore innovative approaches to delivery within their given sector of activity.

HEFCE is currently consulting on a proposal to implement a Risk Based approach to Institutional Review (the audit model for Universities). In inviting HEFCE to consult, BIS stressed that the intent was to deliver a model of Quality Assurance that would provide all the known benefits of an RBR approach. Such a move should be welcomed since it recognises the importance of focusing public money where there is the greatest likelihood that some form of external intervention may be needed to ensure best practice in relation to quality assurance. How-

ever, the actual model for audit that has been proposed in the HEFCE consultation document does not represent what most people would recognise as an RBR model for audit. HEFCE have proposed a two route approach to audit based on only two categories of risk: institutions that have had 2 or more successful audit outcomes will be visited less frequently than those institutions that have had less than 2 successful audit reports. There is no indication of the difference in frequency and no clear information to suggest and difference between the two routes in terms of intensity of audit. Crucially, for what is being described as a Risk Based approach, there is no attempt or intent to consider a careful analysis of institutional risk as the determinant of the audit approach. HEFCE's proposals as they stand are only marginally distinct from the current audit regime and so are highly unlikely to meet the government's request to deliver significant deregulation and a substantial reduction in the administrative burden of Quality Audit on Universities.

In light of the big changes to A levels proposed earlier this year, it would be interesting to collate views on this and look at activity and involvement in this big debate at UEA. If you would like to let us know about any involvement you have etc. could you please contact the editor and we will put an article together in the next issue.

If you would like to contribute please contact Sarah Yeates directly on x2182, s.yeates@uea.ac.uk.

Next issue: Submission deadline 5th October 2012

Continued from page 1.....

Universities face an increasingly competitive market-place. With the, albeit delayed, opening up of Higher Education to wholly commercial players, there will be a need for all institutions to carefully reflect on their risk-utility. Risk aversion will have to be balanced against market pressures. How ever, this does not imply that there will be any reduction in our commitment to quality in the learning opportunities that we offer to students. In fact, the reverse is surely the most likely outcome. The need to devote increasing thought to innovative ways in which we can, not just maintain, but enhance the learning experience of our students is likely to increase rather than diminish.

High performing organisations do not need the heavy hand of regulation on their shoulder to feel motivated to deliver a high quality of service. The desire to continuously enhance the learning and teaching experience for our students stems from our ambition as an institution and the professional dedication of staff. If there is a risk in Higher Education that needs to be carefully monitored, it is the risk that Quality Assurance and Enhancement are treated as activities that only take place when required by some external body. A genuinely risk based approach to audit would recognise that Universities engage in the Assurance and Enhancement of the learning opportunities that they provide because they believe it is the right thing to do.

http://www.bis.gov.uk/assets/biscore/higher-education/docs/h/11-1048-higher-education-implementation-plan
http://c561635.r35.cf2.rackcdn.com/11-944-WP-students-at-heart.pdf
http://www.bis.gov.uk/files/file22988.pdf

Jon Sharp
LTS

A Summary of UEA's Learning and Teaching Day, May 2012

Duncan Craig introduced the day with an informative and thought-provoking keynote talk on internationalisation and the student experience before the day split into its parallel sessions. Teaching students with diverse backgrounds was the theme of a couple of the presentations. Anna Magyar's session 'Exploring IELTS: Implications for academic study on UEA Masters courses' focused on the learning and teaching environment at university and how the IELTS is not really a good marker for a student's proficiency in oral and written English. She pointed out that there is a wide range of proficiency in students with the same IELTS 6.5 score. Anna explored ways to integrate foreign and native English speakers in seminars. In his session on 'Peer-assisted learning (PAL): A new way of engaging and supporting a diverse range of learning needs?', Adam Longcroft presented an interesting overview. This is a form of student-led learning where second or third year students or "mentors" support the learning of first year and foundation students through informal tutorials. Interviews, case studies and examination results suggest PAL improves student learning and enhances learning, teaching and employability skills of mentors. Two UEA teaching fellowships to

develop PAL were announced.

Many sessions involved audience participation. David Dowdeswell-Allaway's session, 'Putting the 'I' in experience: experimental learning pedagogy' was fun and informative. Using a variety of different materials, teams had to build an 'egg carrier' that would protect an egg when dropped off the bridge outside EDU. Each team member was pulled out at different stages to then just observe the rest of the team and reflect on how people interacted with each other and the different types of skills that they displayed during this problem solving exercise. Chris Bishop led an interactive session on 'Engaging students through inclusive attitudes and approaches to English'. He spoke about our use of language, how words and phrases can be misinterpreted or simply not understood by non-native speakers. There was a lot of group discussion and a general discussion on points such as what you should or should not correct on a student's script.

Stefi Barna, Heather Savigny and Rupert Read led a discussion on 'Greening tomorrow's leaders: designing sustainability in all disciplines at UEA.' This group wanted to coordinate teaching of sustainability at UEA. It appears that sustainability is already featured in some courses at UEA but many more courses could include aspects of sustainability in them. There was discussion about how this could be taught – a general course was advised against in favour of it being embedded in to the separate disciplines. It was agreed that staff need to think more about sustainability and then feed their thoughts on to the students. Ironically there were more handouts in this session than any other.

Several sessions demonstrated the use of IT in teaching activities. Richard Jardine's 'Using videos and podcasts' explored the techni-

cal details of recording podcasts (equipment, software, file types and sizes etc) and how to prepare and upload the podcasts onto Blackboard. Once recorded, they can be used by lots of students year after year, individually or in groups. They can also be used as a more personal way to deliver feedback. Stephen Ashworth, Niamh Kennedy and Helen Dodd led a session on using an audience response system to engage students in lectures and assess their understanding. Some cons were highlighted: not all students may engage properly; you need to be confident in using the software; it can be time-consuming. However, students find them useful and liked the privacy (student feedback on this was overwhelmingly positive) and lecturers find that it helps identify gaps, keeps students on their feet and reinforces learning.

Simon Lancaster's session 'The flipping lecture' used the audience response system and white boards to give us a taste of lecture flipping from the other side of the table. Lecture flipping involves providing a screen cast to watch in advance of the lecture so the students come ready prepared for a highly interactive problem solving session rather than a traditional lecture. Students work in small groups to discuss problems and questions with the use of a white board to record their ideas. For more information see Simon's article in this issue and watch out for more on this in future editions of Learning Highlights.

Another use of IT was demonstrated in Anja Mueller and Paul McDermot's 'Pilot study for the use of screencasting and mindmaps in undergraduate laboratory preparation'. This session included an incredible display of three dimensional mind maps. The Prezzi they presented was based on three practicals, giving the students information about each one. It took students a while to learn how to use it but once learnt they really loved it. Anja and Paul suggested that it was most helpful taking students out of failing categories, helping those most at the lower

mark end of the spectrum.

Anna Smajor's session was about using film in her teaching: 'In vitro – using film to explore ethical questions in science'. In this session Ann showed a film that she was involved with making that was developed to teach ethics in schools. 'In Vitro' is a gripping twenty minute film about reproductive technology. Rachael, a brilliant but arrogant young scientist, manages to create artificial sperm from her own bone marrow and a child is born to whom she is both mother and father. Set in the future In Vitro follows the story of three generations of women and the effects that this controversial science experiment has on their lives in a world where science and technology have the power to fragment human lives and values. You can watch the film and find associated teaching resources here: http://www.invitrofilm.com/

There were a couple of sessions that dealt with aspects of engagement. Dan Smith led a session on 'Student attendance and engagement in a School with a diverse student body' sharing CMP's experience with attendance monitoring and intervention. Monitoring and subsequent meetings with students improved attitudes to attendance and engagement and some students with major problems were identified at an earlier stage. However, the process was very time-consuming, and accurate monitoring of large classes can be problematic too. Helen James and Kay Yeoman presented their work on lectures without handouts in BIO. Students were asked what skills they

thought they had learnt. The results showed that students were not confident at note taking; they did not value it as a skill, and felt under pressure in lectures to record all the information. However, they did feel that they understood the lecture material better and made better revision notes as a consequence.

Contributors: Helen James, Harriet Jones, Tove Jorgensen, Margaret Wexler, Grant Wheeler, Sarah Yeates, Kay Yeoman

First Annual HEA STEM Meeting

Following the reorganisation of the Higher Education Academy, the first HEA STEM (science, technology, engineering and maths) Annual Conference was held at Easter. Combining all STEM subjects turned out to be a really good idea, because many teaching issues are common to all disciplines. There were two very good plenary talks, showing some of the most inspiring and technologically demanding aspects of STEM. Kevin Fogg talked about how close we are to sending a manned mission to Mars, and Wing Commander Andy Green talked about the Bloodhound Project's aim to set the land speed record at 1000 mph. They both demonstrated how interdisciplinarity was crucial to success.

The meeting provided the opportunity to talk to those in other science subject disciplines about their approach to teaching and learning. The meeting showed the HEA to be very committed to their role in helping promote and disseminate good teaching practice in universities. Many universities were represented by groups of delegates – next year it would be good if UEA could send a good sized delegation. It was clear from our Learning and Teaching day that we have a lot of good teaching practice going on at UEA that should be disseminated to a wider audience.

Harriet Jones

Screencasts and Vignettes: Putting the Interactivity Back

The School of Chemistry is at the forefront of UEA's drive to use learning technology to enhance learning and teaching and improve the student experience. We have been using Blackboard for formative assessment for a decade and audience response handsets for enhanced lecture theatre interactivity for more than five.

During the last few years we have identified two important trends in our student body: an increasing cohort of international students and a greater awareness of specific learning difficulties. Both of these groups can find following a lecture at first sitting rather challenging and would benefit from being able to repeat the experience. Lecture capture offers students the ability to replay the critical part of a lecture at a time and a pace of their choosing.

The "chemistry experiment" began with audio-only lecture capture using an unwieldy combination of radio microphone and MP3 recorder in 2006. The recordings proved extremely popular with students, who reported listening to them on the golf course and whilst washing-up. However, this technology was inconvenient for the lecturer. Furthermore, it required the students to synchronise their lecture notes and the audio-only recording. This was not an approach ready for general adoption!

As is invariably the case with learning technologies at UEA, the solution was found by Andy Mee and Jo Bruce, who introduced us to Camtasia. Camtasia is a software package that allows the capture of screencasts. Simply put, a screencast is a movie of what appears on the presenter's screen, perfectly synchronised with their narration. Example 1 is a 'history' screencast prepared by my daughters (who were 11 and 6 at the time).

http://www.youtube.com/watch?v=cieLWHLeNm8&feature=player_detailpage

Example 1: 'Castles by Abigel'

This article is not intended as an infomercial for Camtasia, other packages performing a similar role are available and Jo Bruce is currently leading a group looking at what specifications an institutional solution would require. One of the strengths of Camtasia is the variety of outputs that it will generate, which include a flash-based indexed format, allowing facile navigation through the screencast (Example 2).

http://www.uea.ac.uk/~c032/CHE1C3Y/Group15/Group15.html

Example 2: 'Non-metal chemistry'

Following a successful bid for a UEA teaching fellowship, we captured and published an entire lecture course in screencast format. This novel resource was extremely well received by students and was singled out for praise in the module evaluations, with comments such as "Very much enjoyed these lectures and the recording of the lecture was very very helpful especially in revision as it's not always possible to write down additional information in the lectures!"

Buoyed by the initial success, we attained funding from the Physical Sciences Centre of the Higher Education Academy for a two-fold project to capture as much as possible of our first year chemistry course and to create transferable Open Educational Resources, the Vignettes. More than half of the faculty lecturing first years engaged in the project and over 60 lectures were recorded and published during the 2010/11 academic year and continue to be used to support our students. Lecture recordings remain very popular, if somewhat less novel, amongst our students. It seems likely that student expectations will continue to evolve until recordings become the norm and not the exception.

Inspection of the access statistics, generated by the host VLE (Figure 1), typically show an initial minor flurry of activity associated with students using the resource to augment their notes, followed by peaks of activity associated with assessment events. For the typical student, screencasts are therefore most favoured as a revision tool.
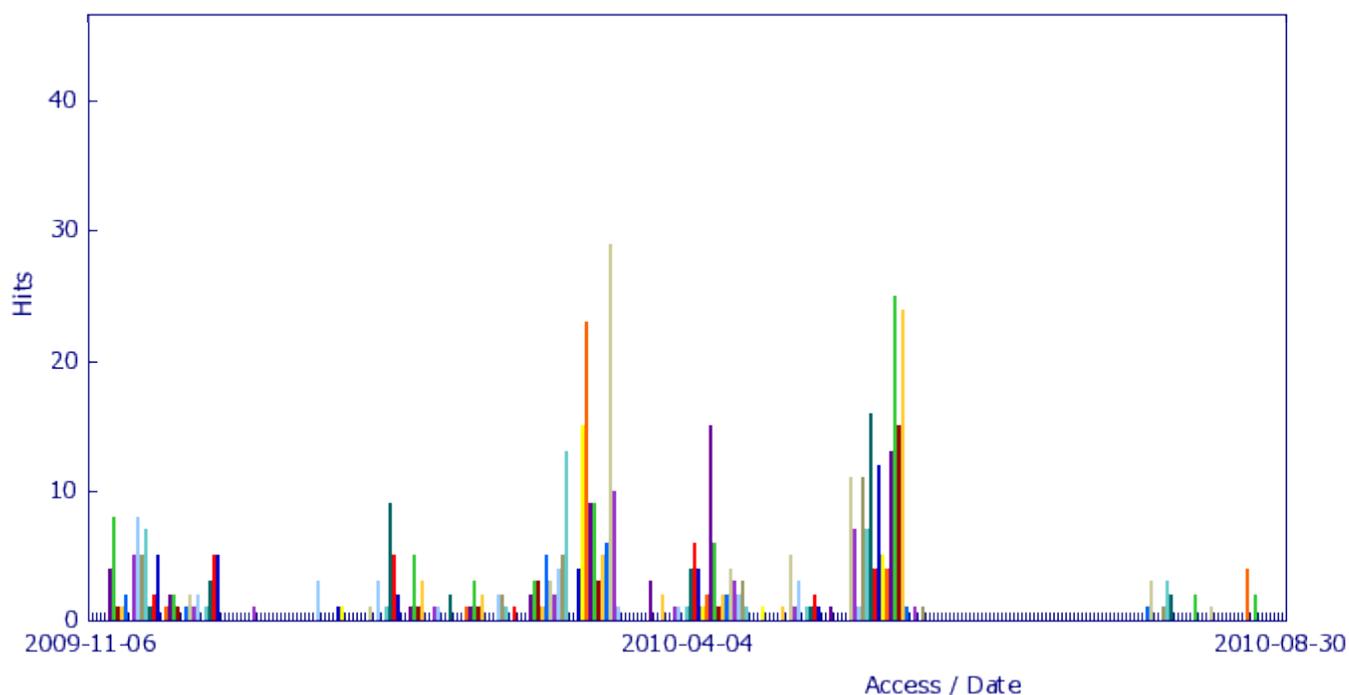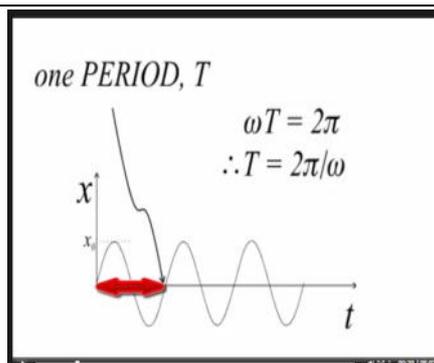
Figure 1. The pattern of screencast usage is associated with lecture delivery in November, tutorials in February, course tests in March and April and a final examination in June. The blip in August is reassessment!

A series of screencasts is almost certainly not the most efficient use of the revising student's time, while full lectures are not attractive open educational resources for other institutions. For us, the most significant limitation of the screencast is its passive nature. A screencast can never be a substitute for a good lecture because there can be no interaction. In order to address these two issues we decided to prepare 'Vignettes', a term coined by Dr Paul McDermott (PHA), by which we mean interactive video snippets. A key concept was identified from the lecture and a 3–5 minute screencast edited to explain and illuminate it (Example 3). The quiz tool within Camtasia was then used to introduce questions designed to probe student attention and understanding of the material. More than 50 vignettes were prepared and are hosted both on Blackboard and as genuinely open resources at www.chemistryvignettes.net.

Example 3: Diatomic molecules as molecular springs

http://www.chemistryvignettes.net/Diatomic%20Molecules%20as%20Molecular%20Springs/Diatomic%20Molecules%20as%20Molecular%20Springs.html
The full report to the HEA is avail-

able on the website. Vignettes too proved very popular with the students, despite this being a somewhat more alien concept to grasp than simply being a lecture recording. A typical comment was, "Vignettes definitely helpful, condensed a lot of work into a small time – but more as a recap than learning".
There are a number of questions that invariably arise when discussing technologies like these:

Do they discourage attendance?
Will they replace lecturers?
What evidence is there that they actually improve learning outcomes?

The short answer to questions 1 and 2 is definitively no! A (good) lecture is so much more than reading the content of some slides. Students appreciate this and the

provision of screencasts, even in advance of lectures, does not impact upon attendance. A screencast is better than the simple provision of slides, but a poor alternative to a challenging, interactive lecture. Answering question 3 is more difficult, while they have a positive impact upon students' perception as measured in evaluation statistics and qualitative statements, obtaining quantitative data is notoriously difficult. We have some evidence that students viewing resources do better in the examinations, but this may simply be a measure of engagement.

We continue to expand the archive of screencast recordings of our undergraduate lectures. Funding for the generation of vignettes is no longer available but we are exploring production, including live chemistry demonstrations, by undergraduates. We have just received funding from the Alumni fund to develop the Flipped Lecture model, in which we use the lecture capture to facilitate radical change in the way we deliver teaching. This will be the subject of a future article.

Simon J. Lancaster (CHE)

S.Lancaster@uea.ac.uk

European Bioinformatics Institute (EBI) Roadshow: March 2012

Computational Biology is a fast moving area at the interface of Computer Science and Biology that is concerned with developing new methodology and algorithms for analyzing complex molecular data such as genome sequences and protein structure. A major academic centre for providing resources and services for this subject is the European Bioinformatics Institute (EBI) located on the Welcome Trust Genome Campus close to Cambridge. To allow the students and junior researchers in the Computational Biology Lab of the School of Computing Sciences (CMP) and other researchers from across the Norwich Research Park (NRP) to become aware of, for example, new tools provided by the EBI, CMP hosted an EBI-Roadshow on March 1, 2012 that was locally organized by Katharina Huber (CMP) and Richard Bowater (BIO).

The main focus of this one day event, attended by 40 participants from across Norwich Research Park, was to learn about the Ensemble Genome Browser and various enzyme databases such as Rhea, which is an annotated reactions database, and IntEnz, which is an integrated relational enzyme database. The material was presented by experts from the EBI in the form of lectures and workshops with Denise Carvalho-Silva focusing on the Ensemble Genome Browser and Rafael Alcantara focusing on enzyme databases. Their expertise in their respective areas combined with their enthusiasm made the event extremely useful and productive. It is hoped that the material underpinning their respective contributions (freely available from http://www.uea.ac.uk/cmp/research/cmpbio/seminars/2011/EBI+Roadshow) will prove to be a valuable resource for students and faculty from across the NRP for many years to come. If you would like further information about the software discussed, please contact either of the local organizers.

Katharina Huber (CMP)
Katharina.Huber@uea.ac.uk

Richard Bowater (BIO)
R.Bowater@uea.ac.uk

HEA workshop: Feedback Practice

I attended the HEA workshop on implementing current feedback research in order to develop good feedback practice hosted at Staffordshire University in May this year. We discussed how traditional methods of delivering feedback can be ambiguous and difficult for the student to interpret. It does not encourage dialogue and can lead to difficulties in transferring skills and lack of self development.

Recent research shows that to allow effective use of feedback there is a need for students to self -assess, engage in dialogue with peers and tutors (social learning) and to be proactive in responding to feedback. It suggests that the process should be student driven, rather than tutor driven as with traditional methods.

Tutors can help students to develop their ability to self-assess by providing opportunities for students to recognise and develop their own self-assessment practice. One way of doing this is by making feedback part of the assignment using a framework such as the GOALS process. GOALS is student focused and considers learning from the student perspective through 5 steps: **G**rasping outcomes e.g. marking criteria; **O**rientate to self e.g. What do I know?, what interests me?; **A**ctions required to achieve outcomes e.g. resources and information; **L**earning evaluations e.g. What worked and what didn't?; **S**trategies for moving forward e.g. How can I improve?. Tutors can use GOALS to help students make better use of all learning resources by feeding forward information, encouraging peer feedback and dialogue, and providing opportunities to work with feedback. This is particularly useful for non-high achieving students who can find self-assessment more difficult.

See: Orsmond et al. (2011) *Assessment and Evaluation in Higher Education* p 1-13

Sarah Yeates

Teaching International Students

In recent years there has been a significant increase in numbers of international students attending UK higher education institutions. UEA is no exception. Last year, the Media, Culture and Society MA programme in the School of Political, Social and International studies (PSI) had over 50 international students registered. Consequently, PSI (along with the School of Film and Television Studies) designed a module (Studying Media) specifically aimed at those students unfamiliar with the British university system and its expectations of students. The main impetus behind Studying Media is to encourage intercultural communication. That said, ensuring that international students' learning experience is of the same quality as home students can be a challenge. It is important to recognise differences and respond in ways that are culturally sensitive.

In a 2008 study Silvia Sovic (a researcher at the University of the Arts London) discovered that international students often suffer extreme anxiety in seminars. As a result, students often choose not to participate in group discussions and become increasingly more introverted. Moreover, this can lead to isolation and a failure to form relationships with fellow students and teachers. Moreover, the HEA web pages on the Teaching International Students project revealed that some students, prior to studying in the UK, are unfamiliar with seminars as a method of learning. Rather, students are primarily taught through lectures and learn from a particular text book. This approach to teaching is not generally practiced in British Universities as it is assumed to encourage 'surface learning' and prevent students from developing their own critical thinking skills.

The teaching team on Studying Media implemented a number of successful techniques in an attempt to enhance international students' learning. First and foremost, we clearly set out our expectations of students with regard to seminar participation in the first session. We informed students that they are expected to not only contribute and actively listen, but also encourage others to participate. Also, we encouraged students to bring in/discuss nationally specific examples (consequently, we found enthusiasm levels were highest in lectures and seminars when students were able to discuss a media text from home). In addition, the decision to focus on study skills proves useful and allows for students to apply the transferable skills to other MA modules. The Studying Media module is a useful resource for international students. However, in order to continue to serve the interests of our international cohort, it is vital that we continue to evaluate, assess and adapt our teaching and learning strategies to suit both students and the university's needs.

Helen Warner

Cold and wet: Summer exams 2012 by Owen Senior