REFLECTIONS

We are exceptional

About *Reflections*

Reflections is published once a semester by the **Centre for Educational Development** and provides a forum for discussing learning and teaching initiatives in Queen's. We aim to balance articles from the various support units within Queen's with contributions from academic staff and guest writers.

In this issue, we lead with an article by Professor Ellen Douglas-Cowie, who has been Pro Vice Chancellor for Education and Students since 2009. Professor Douglas-Cowie will be stepping down from the role in the summer and she reflects on the changes and considerable achievements in the education field at Queen's during this time frame.

Also stepping down this summer will be Dr David Baume who has had a long association with Queen's as Teaching Awards external assessor and invited guest speaker. Dr Baume discusses how staff can put student activity at the heart of their learning, a summary of a workshop session that he recently delivered to staff here.

We have a number of articles reflecting on initiatives in technology which are enhancing teaching, learning and assessment:

- Dr Simon Lancaster from the University of East Anglia, who gave a recent Guest Speaker Series talk at Queen's, discusses how technology can support staff in "flipping" their teaching to enable students to take a more active approach to learning;

- Chris Corrigan from Creative Arts talks about the achievements and challenges of developing a MOOC (Massive Open Online Course) in Critical Listening;

- Paddy Haughian from CED explores the rationale for including social learning elements in the recent MOOC on Identity, Conflict and Public Space, with Dr Dominic Bryan from the Institute of Irish Studies; and

- Gill Kelly from CED provides a comprehensive introduction to a new tool, Grademark, which enables staff to mark and comment on students' work on-line, and provides some examples of how QUB staff are currently using this tool.

We have two very interesting submissions from other Queen's staff members: Dr Katherine Rodgers and Maggie Bennett discuss an innovative student recruitment exercise they carried out and Annette Mac Artain-Kerr talks about the new programme of peer assisted learning, that has been set up for postgraduate research students.

Contributing to the next *Reflections*

We would very much welcome contributions for our next issue of *Reflections* to be published in autumn 2014. Contributions can take several forms:

- **Articles** on an aspect of teaching and learning or student support (generally 500 – 1,000 words);

- **Shorter "newsflash"** items, e.g. reporting on a recent event or advertising a new venture or up-coming event (100 -200 words);

- **Responses** to previous articles or to recent developments in H.E.

Contributions can be submitted via e-mail to Linda Carey, (l.carey@qub.ac.uk) or e.mcdowell@qub.ac.uk in the Centre for Educational Development.

Linda Carey,
Editor of *Reflections*.

MAKING CONNECTIONS

By Professor Ellen Douglas-Cowie

This is a kind of farewell, because I retire at the end of August. I have spent most of the last forty years in Queen's encouraging people, students and staff, to see the bigger picture, and I may as well use this platform to go on doing that. A modern university is as connected as a smartphone, and it is not a good idea to behave as if it only sent and received texts. A thriving university needs people to register the inputs coming in through Facebook, Twitter, WhatsApp, and so on; to access Google; and above all to hear outside voices, and know how to speak to them. If I can encourage people to see things that way, I will be pleased.

Education is the brief that most people know me for, because my most recent role has been as Pro Vice Chancellor for Education and Students, and so I will put education at the centre of the web. In the nature of webs where everything connects to everything, we could just as easily treat something else as the centre, but that is another matter. Education as I understand it needs to be connected in many dimensions if it is to be healthy. A lot of my work has been trying to nurture the relevant connections.

The natural starting point is connecting with the places our students come from. One of my first memories as PVC for Education

Professor Ellen Douglas-Cowie

and Students was meeting a group of headteachers, and being told in no uncertain terms that they perceived a huge gulf between them and us; and that it left some of their pupils struggling when they came to Queen's. What they were being prepared for was not what they were finding when they arrived.

Of course I did not solve the problem. It is at the centre of the debates about school leaving qualifications that are very much alive throughout the UK. What I say here is what I have said in other places: progress depends on building partnerships. People who set syllabuses and exams need to understand what their choices mean

The Trading Room training suite at Queen's University Management School

for people who teach them, and how they relate to what universities expect; universities need to know what they can reasonably expect, as against what they fondly dream; and students going through the process need some sense of how the parts link up. I have tried to work on those things by setting up regular meetings with head teachers, and engaging with exam boards, relevant figures in government, and staff within Queen's – and by taking every opportunity to present the picture to students, potential and current, and their parents. I have also said in other places that Northern Ireland may be able to make the connections better than most places because it is compact. We will see.

Related, but different, are our connections with other post-secondary institutions – the 'FE sector'. FE provides quite a large proportion of our students, and it also provides alternative routes for pupils from school. It is not the enemy. A joined-up system needs a sense of the way education should be divided between its colleges and its universities – what each is good at, who benefits from each, and how choices can be made (and if need be, rethought). Again, we have not solved the problems, but we are making progress in developing the connections that let us work on them.

Following through that line of argument leads inevitably to employers. University education is about intellectual training, not drilling people in routine job skills. However, everyone gains if the intellectual training equips people for high-quality jobs, particularly if they are in the local community. Making that possible depends on communications with employers. Universities need to

understand what jobs outside a university really involve; employers need to know what universities can really deliver. As with headteachers, we have set up a forum for engagement with employers. That has been the key to linking employers in the region to academics, local schools, pupils and parents; and to seminars on key curricular issues such as the importance of Maths as a preparation for university courses and local graduate jobs. The key government departments have also been involved in the links and the discussions. Internally in Queen's, there has been an increasingly co-ordinated response to issues raised by employers, involving both schools and directorates.

One tangible result is a new suite of work-related opportunities for our students, involving, for instance, placements, study abroad, and alumni mentoring. Another particularly pleases me: as I leave Queen's, I am seeing the launch of 'employer led' degrees in the sectors of both Management and Computer Science. These are degrees where five leading employers in Northern Ireland will essentially 'sponsor' up to 50 students on specific pathways by providing summer and year-long placements, and a guaranteed job in the company upon graduation.

I have talked about connections between the University and other sectors. Connections within the University are at least as challenging.

Interdisciplinarity is the most obvious part of the challenge. Single-discipline education is quite a recent phenomenon. When I started teaching, most students did a general degree, covering at least three subjects. Even when single honours became the norm, most students took a range of subjects in their first year. Abandoning even that is an experiment, and many employers' verdict on it is not good. They have real problems with people who can only think in one highly specialised way. The challenge is to find a meaningful way of giving them a broader grounding. The key is to devise courses that let the students see meaningful connections between the parts, and that depends on establishing meaningful communications between academics from different disciplines.

That issue is related to a thorny area, which is the extent to which academic departments should feel obliged to teach general skills. Those include skills that their discipline requires, but that they expect other people to nurture; and skills that are not formally part of the discipline, but that matter for employment. Accepting that a skill needs to be taught does not end the matter: the question then is whether it should be taught by the same people as subject-specific knowledge.

My view of all these issues hinges on connection. We should not teach students in ways that do not connect to the skills that they bring in, or with other things we teach them, or with likely employments. To achieve that, we need functional connections with schools, employers, and other academics within the University.

It may seem at this stage as if I am only interested in students' academic attainments, and not in their personal development. As usual, I think the truth is that they have to connect. Developing a mind that is well stocked with academic resources is part of personal development, and we should not bend to the parts of society that see it as an imposition. In the long run, that would be self-destructive, because well-educated cultures thrive. But neither should we expect students to live lives of grim, single-minded devotion to study. The job of the University as a whole includes steering them towards sustainable balances between intellectual discipline and other parts of life. The balance depends on another set of connections, which run mainly between managers and support staff on the University side, and the Students' Union and societies on the student side. Those rarely impinge very much on the average academic, but it matters a great deal that they are there and that they are healthy.

It is natural to talk about research in the context of building a well-educated culture. There are voices that insist research and teaching are enemies. Perhaps research and mechanical teaching are enemies, but the kind of teaching that has always interested me involves taking students to the edge of what is known, and letting them see the conflicts and open issues that abound there. Understanding that that is what knowledge is like is fundamental to a university education, and it is ground that research springs from as naturally as shoots from a flowerbed. I would be very uncomfortable with a university education that did not help students to understand that connection; and for that to happen, they need to see the connection between knowledge, uncertainty and research in action.

Closely allied to that, it matters that students see the connection between research and what government is calling 'impact'. I am not using the term in a narrow technical sense. I mean the way achievements within the academic sphere benefit life outside it. It is a serious matter if the students who leave us think that most academics spend most of their time playing an esoteric game in order to gratify their curiosity and enhance their standing with each other. It is a serious matter for universities, because a society that believes that will not go on funding them. It is a serious matter for society because, in the long run, it is not true. Society needs people whose business is to subject its beliefs and practices to constant, disciplined scrutiny, and to ask what can be understood, or done, better.

That in turn is part of the wider picture of the way a university contributes to a community. A healthy community needs a great range of inputs from its university sector. It needs people trained in the old professions, and people prepared for the new sources of wealth and employment. It needs people who are well equipped with skills from communication to calculus, and shrewd critics. It needs people who understand what their culture has achieved, and people who can generate new achievements. To provide all those, a university needs to be connected in a remarkable number of ways.

Last but not least, a university contributes to a sense of the way our local region connects to the wider world. What is called internationalisation is the way we do that. By building a community where staff and students from across the globe play an active, visible part, we offer people in Belfast a mirror of the way their lives intertwine, for good or ill, with people in Los Angeles and Shanghai. The challenge that interests me is building a university that naturally and routinely reaches out across national boundaries, and also reaches deep into the local community. I trust that it will go on interesting other people when I have finished saying my farewells.

Student Activity at the Heart of Learning

By David Baume, PhD SFSEDA SFHEA

David Baume

A conversation with a student

My daughter rang from University. I asked her how things were going. Everything was fine. I asked what she was doing today. "Oh, nothing. Today is a free day. No lectures." She said this partly, and of course successfully, to, in her words "wind me up". We had versions of this conversation several times during her studies. It became a game. But it also became an investigation, of sorts.

The experiences of a student

What guidance did her tutors give her about what to do between lectures? Very little, it seemed. Or perhaps guidance was given, but my daughter did not perceive it as guidance, as worth taking seriously.

She would from time to time get together with fellow students, and read through and discuss and annotate the notes they had taken during the lecture.

She would read, or at any rate dip into, items from the daunting list of readings in the course handbook. But after a while she realised that there

would generally be a lecture on the more important readings, the ones to be in the examination. And she found little sustained benefit from tackling the many other readings listed, beyond the very occasional moment of excitement at a new concept that illuminated or changed her thinking.

There were essays; often several essays to be handed in on the same day from several modules after fallow periods of many weeks. The titles sounded to me rather like examination questions, and a little investigation on my daughter's part showed that this was often the case. There was little advice or support on undertaking these essays. Essays have at least two possible functions - an opportunity to learn, and an opportunity to assess learning. These two functions can fit together well – here, they didn't. Essays were seen as knowledge tests.

With fellow students, she discussed the marks they received, but not the feedback, even when it was legible.

I talked with her about learning outcomes and assessment criteria. On one occasion she indignantly suggested to her tutor that a higher mark was appropriate, on two grounds. That she had clearly achieved all the learning outcomes specified for the module (insofar as their attainment could be measured – the outcomes were not very explicit). And that the assessment criteria on which the tutor had marked her down had not been made explicit in advance. I'm not sure what this did for her academic reputation. But her mark was increased.

And, most significant, there were large projects, often group projects, which from the intensity with which my daughter spoke of them, and from her accounts of long hours spent on them, were clearly the most productive,

rewarding, infuriating and frightening parts of the course.

A snapshot of a student's experience, no more. But it may have wider resonance.

Possible implications for practice

At a workshop at Queen's on April 10th 2014, we started to review and plan participants' courses from the perspective of the work that students do rather than what the staff do. Ideas explored included:

- Students probably allocate their time and effort to a significant extent rationally, based on their perceptions of what kinds of effort produce what kinds of return, whether these returns take the form of learning, marks or delight. Students are rarely explicit about how they allocate time and effort. We rarely ask them. We and they may have different views of what comprises a rational allocation of student effort.

- We know roughly how much time students should be spending on their studies – approximately 10 hours for every credit point, and so 100 hours for a 10-credit module, 1200 hours for a full-time year of study, & etc.

- Students may find it helpful to receive guidance on how they can allocate their time during the module, both overall and week-to-week, variously to class contact, online working, planning and undertaking assignments and projects.

- In planning a module, we should ensure that it is possible for a student to achieve the intended outcomes of the module, and to a good standard, through allocating their hours and their best efforts in something like the ways we suggest

to them. We can ask students how they spend their time, and compare their reports with our plans and expectation.

- Students may join the university relatively unfamiliar with this kind of planning. So, in the early months of study, they may benefit from detailed suggestions on how they should allocate their time. Hopefully, by the end of their studies, they will be able to take much greater responsibility for managing their time. However, some guidance, perhaps some negotiation, on how long assignments are likely to take will still be of value. It is, of course, up to the student to work out when they spend that time, matching and relating the requirements of different modules and of the rest of their lives.

- From a student work perspective rather than from a staff work perspective, we can see a course as

a process for inspiring, prompting, supporting and challenging students to do the work that will lead them to achieving the goals of the course. An important element of this support is ensuring that students receive, and use, feedback on their work.

- Taking this idea a little further, we may see the role of the teacher as deciding how best to allocate their own time and effort to inspiring, prompting & etc. students to undertake productive work; that is, work that involves directly and demonstrably valued learning by the students. This led us to speak of the efficiency of teaching, an initially uncomfortable, but soon productive, concept.

- It emerged clearly and strongly that one particularly efficient use of staff time is devising appropriate student assignments; ensuring that students are supported to undertake these assignments, including through peer support; and ensuring that students receive and use feedback on their work on these assignments, again through means including peer feedback.

- We realise that students, often very experienced and skilled at learning through being intensively taught, would need time and support to become skilled at taking increased responsibility for their learning. We felt that this movement towards taking more responsibility for learning should take place over the whole duration of a degree, perhaps 100 weeks or so for an undergraduate degree. Each week, some elements of the students' work – the scale of a task, the complexity of the work, the amount of research required, the amount of collaboration required – should, slowly but quite explicitly, be increased. A staircase of a hundred small steps, contrasted with the huge cliffs that students sometimes

describe in moving between years of study. A staircase, not an escalator – the student has to do the work, to climb. But with advice and support.

- The curriculum thus can explicitly include learning to become a capable and enthusiastic learner, alongside learning the disciplinary and professional skills and knowledge required for graduation.

Conclusion

'Student centred learning' may have become a slightly tired concept, including everything and therefore meaning little or nothing in practice. A shift in attention more towards student activity, student work, seems to be productive, and suggests practical ways to think about planning and running courses. It is not a huge step, but it proved useful. By starting at the end, with the desired capabilities of our graduates, and by developing practical and realistic guidance to help them along the road to graduateness, we also may be able to reinvigorate the idea of student-centred learning.

Sources

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First impressions matter: an active, innovative and engaging method to recruit student volunteers for a pedagogic project.

By Maggie Bennett and Katherine Rogers, School of Nursing and Midwifery

To undertake a successful pedagogic study will inevitably involve students and key to the success of the project will be the recruitment of willing, interested participants. So how can we enthuse students and recruit motivated students for a pedagogic project – students who will engage with you, often outside of normal timetabled classes and maintain commitment throughout the project duration and possibly even beyond it during the dissemination phase? We believe the key is hosting an engaging recruitment event that captures the imagination of potential participants, making them keen to learn more about the project and become involved. This article describes our recent experience working with year one undergraduate nursing students and how we have successfully recruited a group of very enthusiastic students for a short series of workshops aimed at enhancing students' engagement with anatomy and physiology.

Finding time in a busy year one undergraduate timetable was the first challenge. A brief 20 minute slot was secured at the start of a 2 hour lecture, with the support of the year one coordinator and teaching staff.

Good preparation for the event was key to its success. We were very mindful that we did not want to stand at the front of the lecture theatre and just talk about the proposed workshops. We knew that to get students interested we had to make our initial contact with them engaging, fun and memorable. We also wanted it to reflect that the project was underpinned by the principles of active learning, creativity and partnership learning.

We prepared a brief activity for students to undertake. Everyone was given a torso outline and a small sealed envelope, which they were instructed not to open. We were delighted to recruit the help of several students before the lecture to assist with distribution. Suspense and speculation started to build among the class, about the contents of the envelope and their individual involvement. We succeeded in catching their attention before we even spoke to the class!

We structured the activity around a five slide PowerPoint presentation, which started with a background to the project. The students then got active. They were instructed to open their envelopes to reveal four organs of the human torso, which they were asked to identify and position on a page which had an outline of the human torso (Figure 1). There was a great buzz of activity in the room as the students worked on their "torso jigsaw". Even in the short time there was evidence of peer learning. Many students engaged directly with us as we walked around the lecture theatre.   We brought the activity to a close by returning to the PowerPoint presentation to identify the organs and their correct positioning. The presentation ended with a final slide giving our contact details to register an interest in participating, a deadline by which to express interest and a note saying that a further session would be organised for those interested.

This initial session lasted just under 10 minutes which we were very pleased with given that there were over 263 students in attendance.

The impact of the session was immediate as we received a number of expressions of interest by email before we had even left the room. In total we had 41 expressions of
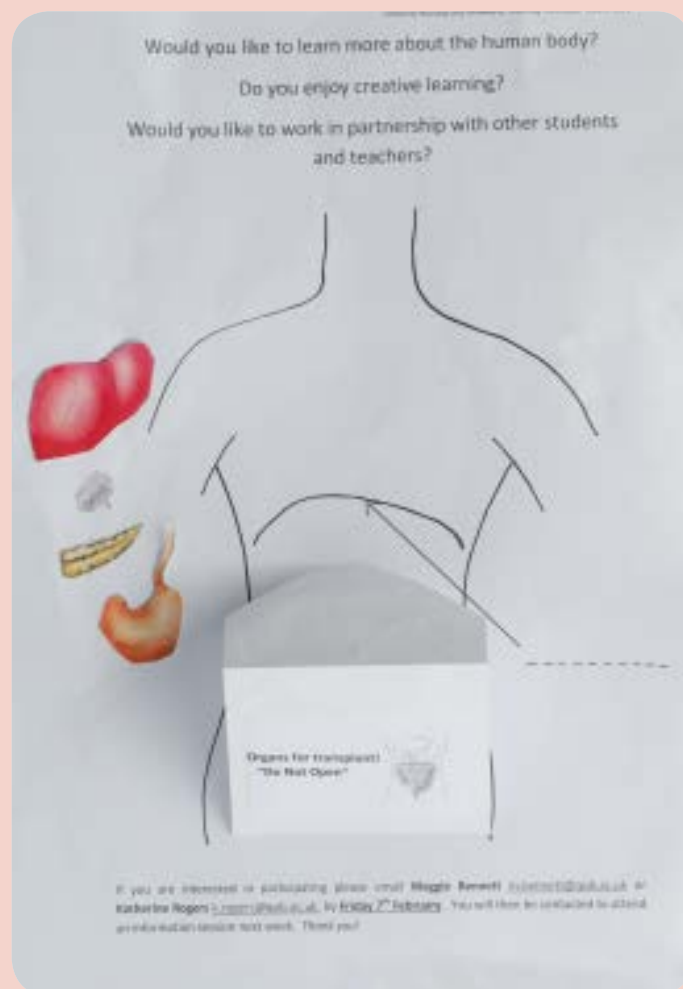

Figure 1 – "Torso jigsaw" activity

At our further information session we started with an ice-breaker, asking students to pick a card, tell everyone present their name, why they chose the card and what prompted them to attend the information session or why they wanted to participate in the project. At this session we wanted to emphasise to students that we would be working with them as partners so we asked when would be most suitable for them to hold the workshops. Interestingly there was an almost unanimous suggestion that Friday afternoons would be favourable – this surprised us immensely.

We finally selected 12 students to take part in the workshops. It was difficult to have to disappoint so many willing volunteers, but we assured them that should a similar event run in the future we would notify them to offer the opportunity to participate.

A number of students reported that the nature of the initial meeting stimulated their curiosity and enthusiasm to participate in the workshops. This supports our theory that an active and interactive information session will engage students and generate greater interest and enthusiasm from potential participants.

interest after the initial session. Everyone who expressed interest was invited to the further information session and they all attended. The aim of this second event was to provide the students with some more information on what the workshops would involve.

Key points to hosting a successful student recruitment event:

- Speak to students at the beginning of a lecture if possible.
- Keep verbal information to a minimum – you don't want your target audience to lose interest before you get started.
- Make it fun and interactive – stimulate curiosity, make it memorable!
- Facilitators should move around the room rather than stand at the front of the lecture hall waiting for participants to finish the activity.
- Try not to be too specific in the details of the project – that is not necessary at the initial event.
- Provide email contact details only of 1 or 2 members of the team to reduce the confusion of cross-posting when students reply.
- Respond to expressions of interest promptly using a standard format letter. In it detail the time and venue for the next information session, if they need to bring any materials and if refreshments will be provided – not surprisingly, we found "refreshments" were a real incentive for students to attend!

Beyond the selfie - social learning in a connectivist environment

By Patrick Haughian, Centre for Educational Development

Paddy Haughian is lead Instructional Designer on Dr Dominic Bryan's course 'Identity, Conflict and Public Space' being offered for free on the FutureLearn platform (www.futurelearn.com).

Since Bandura's Bobo doll experiments in the 60s which provided empirical evidence that learning can happen by watching the social interactions of others, educational theorists have been pondering the informal learning that occurs around our group interactions. Later, social learning became reconceptualised to encompass learning which can occur around the dynamic interactions in social and organisational environments such as communities of practice. One Blogger helpfully described social learning as the 'semi-formal layers of sense making that surround formal learning activities' (Stodd, 2013).

Closely related to, or at least influenced by, social learning theory, is 'connectivism', described by one exponent as a "learning theory for the digital age" (Siemens, 2004). Proponents of this thesis use the metaphor of a network to explain that knowledge in the form of things such as information, data and emotions is distributed across 'nodes' and learning is the process of making connections between these 'nodes'.

At its heart, connectivism is the thesis that knowledge is distributed across a network of connections, and therefore that learning consists of the ability to construct and traverse those networks. (Downes, 2007)

The network metaphor used in connectivism serves to illustrate not only the central role played by technology in our lives, but also how technology has increasingly come to dictate how we communicate, 'connect' and interact with each other. As technology increasingly provides the means and form of our communication, then inevitably it will increasingly be a key facilitator in our learning.

Illustrative of how technology is becoming central to defining and facilitating social interaction has been the explosion in social media tools and services which now permeate most aspects of western culture. From the radio show inviting your 'Tweets' to the hipster posting a "coffee selfie" to his followers on Instagram, social media seems to have an all-pervasive hold of which there is no sign of relinquishment.

**Launch page for interactive timeline**

Inevitably social media tools and services are making their way into Higher Education teaching practice and there is logic to the argument that we should make an effort to 'tune-in' to the culture and networks of our students. It is important to emphasise that social media is not social learning and using social media on a course isn't necessarily going to translate to more or better learning. If one accepts the connectivist paradigm, social media services are seen merely as tools to view and facilitate connections between nodes in the metaphorical distributed knowledge 'network'. However, a further step down that path would suggest that planning a learning environment based on connectivist principles which utilises social media should facilitate social learning.

Whether one accepts the connectivist thesis or not, it does give us a framework in which to tackle the biggest challenge to online or technology enhanced learning, i.e. most learners do not want to socially engage with each other. If we accept the research which suggests interaction is good for learning, then what Jacob Neilsen, the usability guru, calls the '90-9-1 rule' is extremely problematic. This is, in online communities, 90% of users are lurkers (read, observe but don't contribute), 9% contribute occasionally, while 1% account for most contributions.

This is particularly challenging in designing a MOOC, when studies show better completion rates for courses which don't promote active engagement but rely on instructor-led video lectures. So, how do we design an online course which promotes social engagement, interaction and connection when most learners do not want to engage? For the second MOOC offered by Queen's, Dr Dominic Bryan's, *'Identity, Conflict and Public Space'*, the answer was in some ways a return to Bandura's early work. If Bandura proved that learning can occur by observing the actions
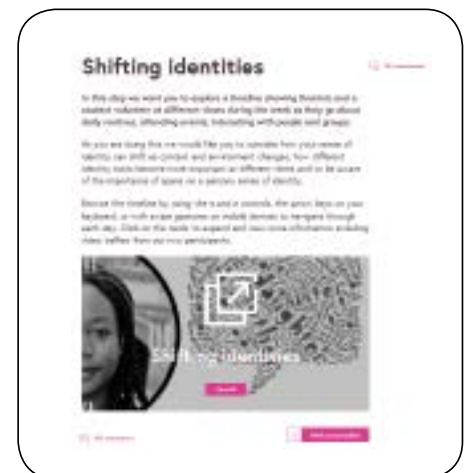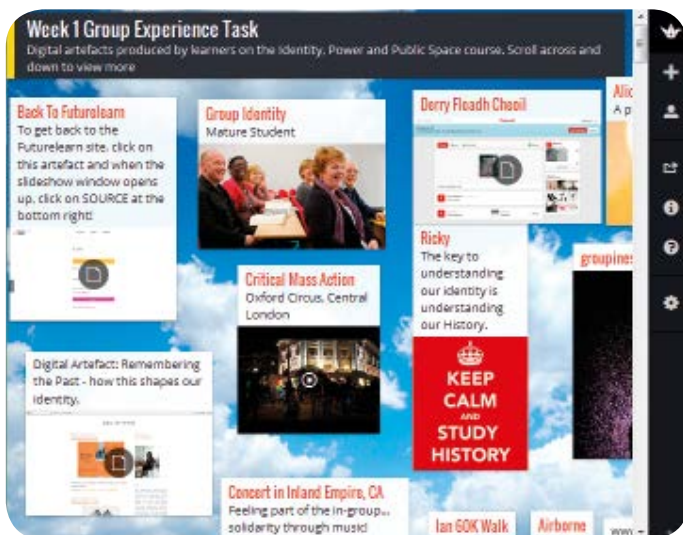
'Virtual wall' used on course to share student work

and interactions of others, then by providing enough visible interaction opportunities, those who don't want to engage can learn from the behaviour of those who do. One of the underpinning design goals for Dr Bryan's MOOC then was to encourage learners to share knowledge in a way in which others could benefit. This meant that where possible we wanted learner generated content to drive the course dynamic. The counter-balance though was to ensure that any planned socially interactive learning activities did not completely exclude those who didn't want to take part.

The course was subsequently designed around a core set of learning activities in the form of a pre-recorded video discussion series by the team of Queen's academics, Dr Dominic Bryan, Dr Sam Pehrson, Dr Milena Komarova and Dr Neil Jarman. Set around the passive video sequences are numerous active learning 'steps' which encourage learners either to interact with something to stimulate alternate thinking on a concept, reflect on something or to apply lessons learned to produce a piece of work. In short, we wanted activities that promoted social engagement, where the interaction is visible to all and had potential to generate learner content.

What we came up with was an approach which blended a mix of traditional online discussion on the FutureLearn platform, innovative external social media services along with interactive exercises developed and hosted by Queen's. For example, one step asks learners to view and comment on a case study produced in Storify, a service for creating stories from social media such as YouTube clips and Wiki articles. Another asks them to contribute to a word cloud

generated from responses to a question. In another, a phone picture illustrating a concept is uploaded onto Flickr or Instagram for discussion. Other activities include engaging with interactive timelines; self-evaluation tests; self-reflection tasks generating digital content which is peer reviewed and optionally shared on 'virtual walls'; and the opportunity to participate in panel discussions streamed live on Google+ and achieved on YouTube.

Key to our underlying aim of providing learners with the opportunity to observe the behaviour of others, was that every learning step and interaction in the course, whether on FutureLearn or external websites, was observable by all on the course. In connectivist terms, that each node in the network is accessible and viewable by all. In practice, this meant that, regardless of whether we are asking learners to produce an artefact with an online service, participate in a live discussion or view a resource, every learning step had to be achievable on all devices whether smartphone, tablet or desktop computer - a tall order given the variety of devices and browsers.

At the time of writing we are at the end of the second week and initial observations are positive. So far we've had over 500 artefacts produced by learners shared on the virtual walls, thousands of posts on the discussion forums (over twice the number expected per user on average), and 80 learners participated in the first two live panel discussions while hundreds more viewed the archived version on YouTube. We have learners registered in 117 different countries around the world of which 80% could be described as 'active' and 35% as 'very active', again exceeding expectations for this stage of the course. Hopefully in the next edition of *Reflections* we will have further positives to report from the experience.

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Developing a MOOC - Critical Listening for Studio Production

By Chris Corrigan, School of Creative Arts

Chris Corrigan

Critical Listening for Studio Production', was the first MOOC (Massive Open Online Course) to be delivered by Queen's University. It was a seven week course which ran from 13 January 2014 and was designed for audio engineers, musicians and audio enthusiasts, introducing learners to the principles of sound production and propagation, and the various ways in which audio engineers creatively manipulate sound. The central focus of the course was the development of key listening skills relating to the practice of music production in the recording studio. The course was developed by Chris Corrigan and the School of Creative Arts with support from Centre for Educational Development and Information Services.

Development

Much of the content for the course was derived from MTE1009 Audio Engineering 1, a core module for students enrolled on the BSc Music Technology and Sonic Arts in the School of Creative Arts. The module provides students with the fundamental skills necessary for subsequent work on the pathway in sound design and sound recording.

For practical reasons, MOOCs offer a limited number of assessment methods – typically multiple choice style quizzes and/or peer reviewed assessment. Early on in the design process it was agreed that the focus for this MOOC should be the development of technical listening skills, as these are skills that can be assessed effectively using audio examples and multiple choice questions. One of the challenges faced in adapting the original content was to significantly extend the repository of audio examples that could be used as practice resources. Technical listening skills, like many other listening skills, are developed over time and so it was important that we created an extensive resource that could be frequently revisited both during the course and after course completion. In total, over 2000 graduated listening exercises were created and these practice resources remain accessible to registered learners beyond the seven week duration of the course. Additionally, the theoretical context for the listening exercises needed to be presented in such a way that did not assume prior musical or technical knowledge.

Course development began in July 2013 with scripting for the course trailer. The video footage for the trailer was shot over a week in mid August and editing/assembly was completed by the end of August. The instructional content was created over a period of six months from August 2013 through to February 2014. The instructional design for the course was planned and developed with a development team from CED, Information Services and Media Services, who advised on translating a module to an online course. The design process was extensive and involved draft scripting and editing, storyboarding, recording of audio voiceover, shooting of instructional video content, creation of the necessary audio examples, digital animations and stills, audio software screen capture and final proofing.

Course Structure

The instructional content of the course was delivered over six weeks with the seventh week used for learner review of the course materials and preparation for the final assessment. Each of the instructional weeks follows a similar format. A series of video presentations introduces the learner to the property of sound or the particular audio process being discussed. The presentations utilise a range of delivery methods including presentation/demonstration to camera, digital animation, PowerPoint-style slides with audio voiceover, software screen capture and audio examples. The FutureLearn platform allows the learner to navigate through each of the presentations at their own pace, marking each as complete when ready to move on. Fifty-three video presentations were created for the
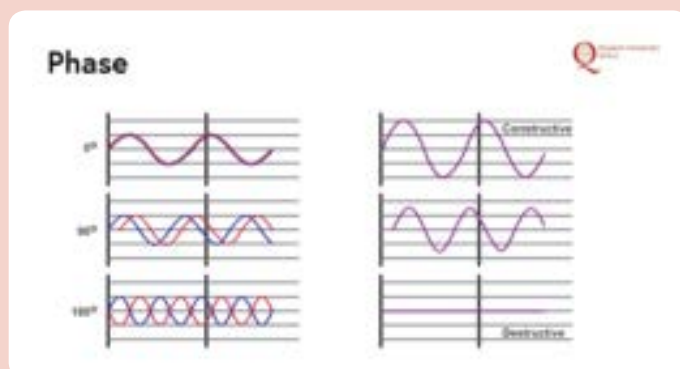
course with an average viewing time of 4 minutes per presentation.

On completion of each week's video presentations, a bank of practice audio resources was provided, allowing the learner to develop their ability to identify properties of sound or attributes of audio signal processing. Two types of practice resource were created:

- absolute - the learner replays a single audio file and is asked to identify a specific property (e.g. fundamental frequency) from a list of options

- comparative - the learner replays a reference audio file followed by a modified audio file and is asked to identify the altered parameter or the degree of parameter change (see Figure 1).

Figure 1

The learner works through as many or as few of these practice resources as they wish, as often as they wish, and receives instant feedback on the accuracy of their response.

Each instructional week concludes with a short, 10-question listening assessment, based on exercises introduced in the practice listening resources. A final 40-question listening assessment was presented in Week 7, drawing on content covered throughout the six instructional weeks of the course. An example of the instructional video content and practice listening resources for Week 1 of the course is provided below:

Week 1: Fundamentals of Sound - Frequency

Instructional Video content

- Production and propagation of sound
- Properties of sound – wavelength, amplitude, frequency
- Pitch and frequency
- Pitch and timbre
- Complex waveforms
- Noise

Practice Listening Resources

- Identification of octave spaced sine waves
- Identification of octave spaced complex waveforms (guitar, piano, harp, marimba)
- Identification of frequency bands (pink noise of 1 octave bandwidth)
- Identification of third octave spaced sine waves
- Identification of third octave spaced complex waveforms (guitar, piano, harp, marimba)
- Identification of frequency bands (pink noise of 1/3 octave bandwidth)

Listening Assessment 1 – 10 questions

Feedback and Developments:

An end of course survey was sent to all enrolled learners and we're awaiting the results of this from FutureLearn. However, initial feedback has been largely positive, with one participant stating,

"The concept behind Futurelearn is inspirational. I can't be the only participant who has been invigorated by the academic rigour and challenge supported by a quality resource (the online course) - but also by something that is available to me in a way that totally fits in with my other life commitments - and is free to me!! Thanks"

8,300 learners enrolled for the course from a range of countries including UK, USA, Canada, Columbia, Ireland, Spain, Australia, France, China and Germany. Average completion rates for MOOCs is between 6% and 12% and the completion rate for this course at the start of March was 11%, with many learners still working through the course materials. A second run of the course is planned for 2015 and we will be working with FutureLearn to implement a number of enhancements to the platform's multiple choice question design including:

- A correct answer reveal after three unsuccessful attempts
- Randomization of question order within a particular listening theme
- Concealing the number of practice questions not completed

It is hoped that the latter two modifications will reinforce the idea of the practice questions as a resource to be frequently revisited rather than as a fixed number of questions to be completed.

Synergies & Sustainability: working with postgraduate research students and former students in the design and delivery of learning resources

By Annette MacArtain-Kerr, Postgraduate Centre

Context

This article describes the making of videos in conjunction with students, former students and media services as a resource to support final year postgraduate research students in the preparation for the Viva Voce examination. The videos complement Peer Assisted Learning for the Viva Voce Examination sessions, which are organised by the Postgraduate Skills Training Team. The aim of the Postgraduate Researcher Development Programme (PRDP) is to support PhD students in the development of research skills and to enhance their employability through career and personal development. The programme is aligned with the Researcher Development Framework which sets out the key skills for research. (Vitae, 2010).

Rationale for the Videos

Peer assisted learning for the Viva Voce Examination, the results of which dictate whether postgraduate research students pass or fail their research degree, is an oral examination with a panel of examiners, including an external examiner, an internal examiner and a chair or convenor. Students are required to defend their 80,000 word thesis during the examination which typically lasts between two and four hours, although it may be longer. It is important that students are equipped to perform to the best of their ability for this exam. Peer Assisted Learning sessions are run twice yearly, to coincide with thesis submission dates. The regulatory framework is covered and participants are given opportunities to practise skills to assist their preparation for the viva. Although facilitators' experience of the viva forms an important part of the sessions, feedback has consistently indicated a demand for subject specific information about the viva experience. This is not surprising given the wide variety of subjects of research in the twenty schools at Queen's, however, a team of three or four facilitators is not going to be able to meet this need. Dr Rowena Murray outlines some recent research into the candidates' experience of the examination which indicates a theme of 'mystique' because it all happens behind closed doors. (Murray, R 2009, p3). Given this relative lack of information about the viva and the diversity of research areas, we decided to respond to postgraduate students' need through recording to video as many accounts of the viva as possible across subjects and faculties. The aim was to develop, in conjunction with Queen's Media Services, a series of online learning tools to support preparation for the Examination. Research suggests that using peers to teach each other is an effective way of improving student performance. However, this has not been as common in the research environment as in the undergraduate one, according to Einar Thorsen (2012).

The PAL Videos Project

The structure and content of the viva video sessions were planned in conjunction with current as well as recently graduated doctoral students. Areas covered included; what questions to ask, length of videos, locations and cover shots, amongst others. Media Services was an excellent source of support and advice throughout the project from initial planning to completion. Thorough preparation was done with the participants in relation to interview questions and what to expect during filming. Filming was done on the weekends to minimise disruption from the external environment. Although the aim is to ensure at least one video from each School across the three Faculties, this is to be developed over a period of time. The initial plan for this year was to start with three videos – the number was dictated by funding available. In order to be able to stay within budget, we needed to recruit a volunteer production team. Synergies within the postgraduate researcher development programme were identified - a training course run by Media Services in 2013 yielded a postgraduate research student volunteer to film the videos.
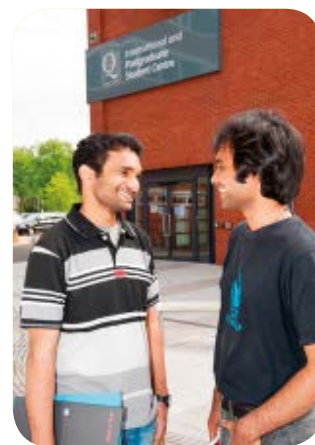
The PAL project: synergies and sustainability

Working with postgraduate students and former students in the development of the Peer Assisted Learning videos created a type of active, co-learning environment which facilitates the harnessing of postgraduate students' prior learning and professional experience. This is in marked contrast to the type of instructor-led learning which at times prevails in skills training. However, it fits with the aims of sustainable development described in the postgraduate

Dr Leticia Villamediana, Annette MacArtain-Kerr, Amanda McKittrick, Dr Rebecca Lutton, Andy Long, Dr Yun Wu

taught environment which 'capitalises on the strengths, prior academic, cultural and personal experiences and modes of engagement of an increasingly diverse student group'. (McEwan 2007) In other words, the project was cost effective and it delivered a high quality educational package that utilised students' (and former students') experience in 'real' learning environments. A major difference from McEwan's (2007) aims is that the PAL project did not seek to reflect on the sustainability agenda as this was not part of its objectives. However, it did allow students to develop skills and experience which meet with the employability agenda.

One of the key skills available for development through the project was team working. The extended team comprised the author, who initiated the project and acted as co-ordinator, Media Services, former PhD students as contributors, and a current student who had the key role of shooting the video. Working with so many stakeholders creates a need for some kind of structure so that everyone knows what is happening. However, this is not always as straightforward as it seems when each person brings something different to the project. The student shooting the video had excellent prior experience, as well as recent training with Media Services. However, when it came to the content of the videos, there were structural pieces that needed to be included for consistency, as well as variations in content and style depending on the different contributors. These and other areas needed to be negotiated as we worked, in the relatively pressurised environment of video production and shooting.

Conclusion

The PAL video shoot has delivered three high quality videos clips (see link below) which provide an increased learning resource and will allow final year PhD students to benefit from the knowledge and experience of former PhD students in specific subject areas. In addition, the pilot has provided an opportunity for current and former PhD students, some working in academic or post doctoral roles, to enhance and develop skills that will serve them in the future.

References

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Thorsen, Einar (January 2012) *Peer support and the learning experience of postgraduate research.* Networks, Bournemouth University

Vitae (2010) Careers Research & Advisory Centre CRAC Limited. www.vitae.ac.uk/RDF

PAL Videos can be located at: http://www.qub.ac.uk/sites/PostgraduateCentre/PostgraduateResearchFundamentals/LateStage/GettingYourResearchDegree/TheExaminationProcessTheViva/

Introducing GradeMark at Queen's

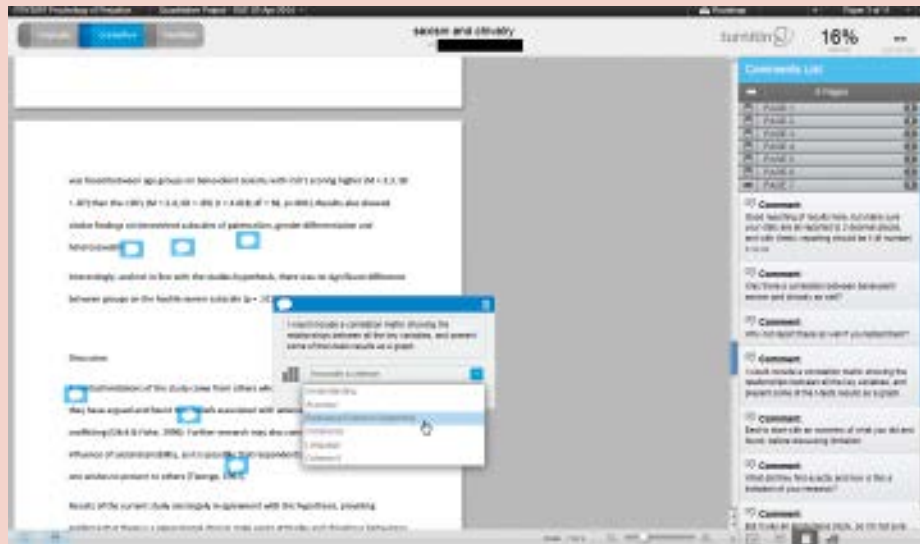By Gill Kelly, Centre for Educational Development

Figure 1: On-script comments and the comment list

In response to requests from staff, Academic and Student Affairs has extended the TurnitinUK Licence to include the GradeMark tool. This semester the e-AFFECT project has been funding a GradeMark pilot in selected modules in Politics, Psychology, Creative Arts and Food Science. Their use and experience will help to inform how the software is used in a more extensive pilot next year.

GradeMark offers the following facilities to markers:

• Online assignment submission

• Electronic receipting

• Anonymous marking (optional)

• Built in generic comment banks

• The ability to set up, reuse and share your own comment banks

• The ability to set up, reuse and share assessment grids (known as rubrics)

• The ability to set up, reuse and share feedback forms

• The option to leave a voice comment with the script

• Assignments may also be checked for originality (optional)

• Indication that students have viewed their feedback.

Students can view their provisional mark and feedback online at the release date. They can view any comments provided on the script and also in list form (see Figure 1).

In addition, there is a space for the overall comment (which can be in sound form). Where forms or rubrics have been used, students can view their feedback related to the marking criteria.

Figure 2: The downloadable student report
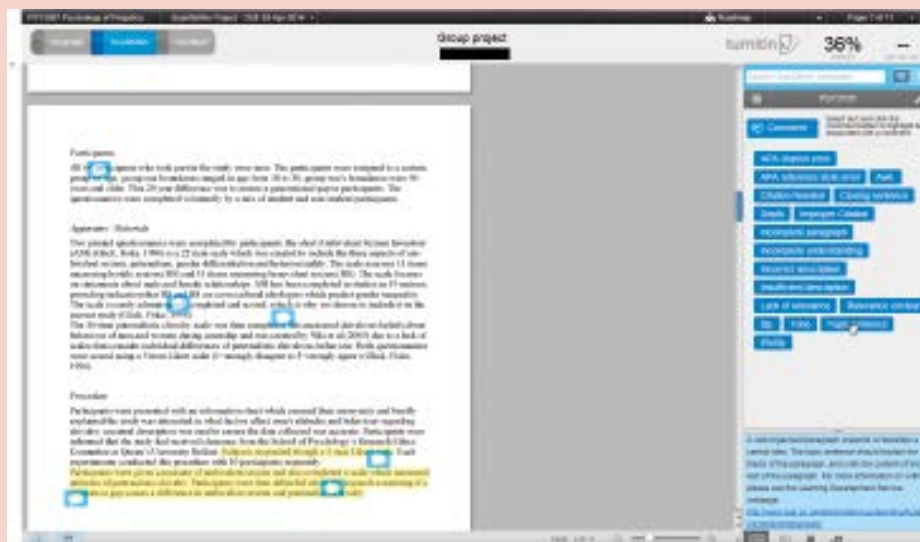
Figure 3: Abbreviated QuickMarks can be dragged onto the script

If they wish, students may download a pdf of their essay and feedback in a full report format.

In the example in Figure 2, all feedback facilities were used in marking the script. It is possible to choose the approach which best fits the assignment and the marker's practice.

QuickMarks and Comments

Where the marker wishes to leave comments on the assignment script itself "QuickMarks" in banks alongside the script may be dragged to the appropriate point (see Figure 3). Additional, more individual comments can be added to these QuickMarks. If nothing in the bank suffices then individual comments can be typed directly on the script and if required saved to a bank for future use. As they are added to the script, comments and QuickMarks may also be associated with criteria (if set up in rubrics or forms).

Criterion-Based Marking with Rubrics or Forms

If the marker wishes to reference the assessment criteria within the feedback or award a mark in relation to the student's performance against each criterion, TurnitinUK has options to do this. Forms or Rubrics (assessment grids) may be designed and created in TurnitinUK based on the criteria set.

In the School of Psychology, markers are encouraged to give the students specific comments and suggestions for improvement. The form below will allow the marker to type this for any of the five key aspects assessed.

Rubrics are an alternative to forms. They may be used for feedback purposes indicating a broad standard to the student, or used to aid mark allocation or, in some cases, to automatically calculate marks. The rubric overleaf has been used with an assessed practical exercise this year. The

Figure 4: A feedback form

Figure 5: A scoring rubric

marker simply chooses the cell which best describes the student's performance for each criterion and GradeMark calculates the final mark. This may be done using a conventional machine or iPad (but not android tablet). The author of this grid, Barry Quinn from the School of Management, acknowledges that it took time to design, but now that he has it set up it is available for reuse in future years and can be adapted for other assignments.

TurnitinUK provides some useful examples to help guide rubric development. Rubrics may be imported from MSExcel or downloaded from the TurnitinUK site.

Overall Comment

A third option for providing feedback is to leave an overall comment on student performance. This may be saved in the text box provided or if typing is not your preference, there is the option of making a voice recording of up to 3 minutes in length.

Team Marking

QuickMark banks, forms or rubrics may be copied, adapted and reused for other assignments or exported to send to other markers, to afford efficiencies and promote marker consistency.

Those trialling the software so far have been very positive about their experience. If your School is interested in being included in the next phase of the GradeMark pilot taking place in 2014/15, please contact Linda Ryles, l.ryles@qub.ac.uk.

e-AFFECT: Three years on

By the e-AFFECT project team, Centre for Educational Development

During this academic year, the core project team in the Centre for Educational Development has continued to support a wide range of subject areas seeking to enhance their assessment and feedback practices. Progress and outcomes have been disseminated across the higher education sector through participation in Jisc events, webinars, online meetings and through freely sharing the project's resources via the Jisc Design Studio http://jiscdesignstudio. pbworks.com/w/page/50671059/e-AFFECT%20Project.

The project has developed a phased approach to change ('changing together') using Appreciative Inquiry that facilitates a non-judgmental review of existing practice and the development of a collaborative Action Plan (supported by a small programme grant). There is potential to use this model beyond the assessment and feedback arena. The process has created 'space' for dialogue around assessment, feedback and the curriculum amongst degree programme teams. Outcomes include:

- an improvement in student performance in individual modules where assessment and feedback activities have been redesigned;
- an increased uptake in the use of the assignment tool in Queen's Online resulting in significant savings in clerical/administrative staff time and efficiencies for academic staff, external examiners and students;
- a consequent increase in online marking.

A small pilot of GradeMark is underway involving five subject areas; lessons are being learned and other disciplines have confirmed interest in taking part in the pilot in 2014-15. An article on GradeMark appears on page 14.

The three Phase 1 programme teams that launched the project in 2011 (Civil Engineering, English and Psychology) have continued to implement and refine their action plans, increasing the impact of the project.

Seven programme teams in Phase 2 (Environmental Planning, Computer Science, Music, Music Technology, Drama, Film and Business Management) began to implement their bespoke action plans in September 2013. Guidance was provided for staff and workshops facilitated for students.

Interventions include:

Environmental Planning:
- Level 1 and 2 workshops on assessment criteria and feedback were held early in semester 1; requiring students to indicate in assignments how they have acted on feedback given on earlier work;
- Use of Jing and Voicethread.

Computer Science:
- using QuestionMark Perception to deliver formative activities;
- standardising criteria through peer review;
- providing model answers for problem solving;
- uploading and marking coursework electronically.

Music:
- using online learning journals and blogs to enhance dialogue with students;
- a student activity of critiquing past assignments to an agreed set of criteria to help clarify assessment criteria.

Drama:
- using audio feedback;
- using Voicethread to engage students in module content.

Film Studies:
- uploading student video/film which is enabling remote access for assessment;
- creating an online learning community;
- using audio feedback.

Music Technology:
- using screen capture to provide feedback;
- using group work technologies to support assessment and feedback.

Business Management:
- using the QOL assignment tool for e-submission/marking/feedback in the part-time BA degree with a view to extending this to other degree programmes.

Phase 3 programme teams in Law, Midwifery, Biomedical Sciences and Social Work took part in Appreciative Inquiry, Action Planning/ Technology sessions. Action Plans for implementation in September 2014 have been agreed and some development work is already underway.

There is now a growing body of staff experience in the use of technology in relation to assessment and feedback. Their expertise is being shared to support more recent participants and to build capacity. The CED Annual Conference on 26 June 2014 ('Assessment and Feedback: a Road to Success') will showcase some of the project's activities at School and module level.

Ongoing support, tailored staff development and resources are available in the new academic year. Each Phase is learning valuable lessons from those that precede it. If you would like to explore how the project might enhance your School's experience of assessment and feedback, please contact Linda Ryles on extension 1343 or email l.ryles@qub.ac.uk to arrange a short meeting.

e-affect
e-assessment and feedback for effective course transformations

The Flipped Lecture: beyond screencasting

By Simon J. Lancaster, University of East Anglia

Simon Lancaster

Dr Simon Lancaster is a senior lecturer in the School of Chemistry at the University of East Anglia (UEA). He has spoken widely in the UK and Europe about methods of making better use of the spaces and time available for face-to-face teaching in Higher Education and delivered a workshop in Queen's in March on 'Technology Enhanced Learning.' In 2013 Simon received a National Teaching Fellowship and the Royal Society of Chemistry Higher Education Teaching Award.

The traditional lecture format, in which the expert stands at the front and shares their wisdom with the audience, is as old as civilisation. The purpose of a tiered lecture theatre would be immediately obvious to an ancient Greek philosopher. How then has the lecture survived the advent of the printing press, video and now the internet? The value of the traditional lecture can be debated endlessly: anecdotal experience sometimes suggests that the learning effectiveness of the format can be rescued by the charisma and enthusiasm of the lecturer, but the research evidence suggests that this may be illusory.

Many staff have explored the use of audience response handsets (clickers) to enhance interactivity and gauge understanding, but interaction takes time. Every question has to be presented, and if it is to aid understanding, it needs time to be considered. The answers must be polled, digested and reacted to. In disciplines wedded to content, this presents some tough decisions: Do we sacrifice content to make way for interaction? If students don't react the way we wish, do we plough on regardless or revise our approach?

The 'flipped teaching' model promises a solution to this quandary. The term is normally attributed to Bergman and Sams two notable practitioners who wrote *'Flip Your Classroom: Reach Every Student in Every Class Every Day'* (2012). The flipped classroom/lecture theatre is not a particular set of practices but a philosophy that places the student and not the lecturer at the centre of the learning process. There is no one way to flip teaching and the notion that students should do some preparation before a timetabled session is a well-established one in many disciplines.

The use of screencasts plays a significant part in flipping the teaching. A screencast is a "movie" of what appears on the presenter's screen, perfectly synchronised with their narration and it enables students to replay the critical part of a lecture at a time and pace of their choosing. It can never be a substitute for a face-to-face experience because there is no interaction; however, a screencast archive can present a familiar and very convenient preparation resource for the flipped lecture. In the School of Chemistry at UEA, students were required to watch screencasts of three lectures recorded during the previous year, and the timetabled sessions were then replaced by the flipped experience, using the audience response handsets to engage the students in active learning.

For visual subjects, students need to be able to represent their answers in the form of diagrams or figures. This is a skill that does not lend itself to keypads and MCQ, but you can take an alternative approach by

PRS system being used in a Queen's lecture

asking students to sketch on tablet computers; or personal whiteboards for a non-technology solution. By asking the students to hold up their boards to face the lecturer, the liberating anonymity can be preserved.

The students at UEA were very positive towards lecture flipping and their willingness to present explanations of what the process is about was striking. Table 1 presents comments collected from one second year module in which just three sessions were flipped.

There is no definitive way to flip a lecture but during subsequent years of refining the process we have had significant success with a relatively simple technique that has its roots in Mazur's (1997) model of peer instruction. For example, if students provide a range of answers to a question in which you expect a single correct response, instead of rushing to correct, invite the students to find someone they disagree with and exchange explanations and then poll again. The effect is invariably positive and sometimes extraordinarily so. The secret of effective flipping, therefore, lies in posing the right questions, i.e. questions that are not so easy that they only require superficial recall but not so difficult that students are not ready to act as advocates in the lecture theatre.

Lecture flipping does not reduce contact hours and simply recording screencasts and publishing them on your VLE is not sufficient for a useful flipped experience. Lecture flipping cannot be described as an easy option for staff, who need to have pre-prepared lecture material (screencasts) and then prepare a set of outline questions for discussion in the classroom. This approach requires the "teaching facilitator" to relinquish the control normally held by a lecturer in a traditional lecture, and be prepared to go in whatever direction the student answers lead. However, it is invigorating for the staff member, engaging for the students and promises a legitimate role for the teaching spaces we have built ourselves in what ought to be a digital age.

Table 1: Student evaluation comments for Inorganic Chemistry 2011-12 (University of East Anglia)

I appreciated Dr Lancaster's efforts to make the lectures interesting and engaging in a modern way. The 'flipped' lectures were very successful.

I really enjoyed the flipped lectures and find that revising that material is much easier.

The flipped-lectures are a definite step in the right direction, away from archaic lectures with little or no mental stimulus, towards a more interactive learning experience that maximises learning outcome!

I think the flipped lectures were a really good idea because it was a more interactive way to engage students into learning, rather than the repetitive routine of having to listen to the lecturer work through a PowerPoint presentation for an hour.

Centre for Educational Development 8th Annual Conference

Assessment and Feedback:

A Road to Success

Date 26th June 2014

Venue Canada Room and Council Chamber

Keynote Speakers:

Professor Margaret Price NTFS, ASKe Pedagogy Research Centre at Oxford Brookes University

"Assessment literacy: making the link between satisfaction and learning"

"Developing assessment literacy in students - deliberate interventions"

Richard Osborne, Project Manager, University of Exeter's Jisc-funded, COLLABORATE Project

Designing work-integrated assessment: tools & techniques for creating 'authentic' assessments

In addition to the keynote addresses the conference will include:

- An overview of the work of the Queen's Jisc-funded Assessment and Feedback Project, e-AFFECT.
- A showcase of some e-AFFECT School and module level activities

Further details and the conference programme are available from the CED website www.qub.ac.uk/ced . Registration is via Queen's Online using iTrent.