**Enhancing Graduate Employability: The Importance of Basic Skills**

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Employability may be defined as:  
‘A set of skills, knowledge and personal attributes that makes an individual more likely to secure and be successful in their chosen occupation(s) to the benefit of themselves, the workforce, the community and the economy.’ (Yorke, 2006).

Colleagues may be forgiven for thinking that the skill set their undergraduates are expected to acquire is constantly expanding, due to an imperative for change, driven by the demands of graduate employers and Government policy. Sir Ron Dearing’s report of 1997, with its recommendations regarding the key skills of communication, numeracy, IT and learning how to learn, was one of the driving forces behind QUB’s original Student Skills Policy of 2000.

More recently, DEL’s Success Through Skills: The Skills Strategy for Northern Ireland (2006), with its emphasis not only on the ‘essential skills’ of literacy, numeracy and ICT, but also on a number of ‘employability skills’, including innovation, entrepreneurship, enterprise, management and leadership, has proved one of the external drivers for QUB’s current Student Employability and Skills Policy 2008–2011. This emphasis on employability skills is, of course, nothing new. For more than two decades, increasing the employability of the nation’s graduates has been high on the UK Government’s agenda.

Various Government-funded programmes have motivated universities to prioritise initiatives aimed at enhancing their undergraduates’ employability skills and, more recently, to incorporate these initiatives into their learning and teaching strategies and supporting policy documentation.

In addition, universities are being encouraged to engage more with employers and facilitate their greater involvement in curriculum design and development, with a view to better preparing students for the world of work.

*Continued overleaf ➔*
In our enthusiasm to provide more opportunities for students to demonstrate their creativity and innovation, their entrepreneurship and enterprise, and their management and leadership skills, we should neither forget the fundamental importance of the more basic, essential skills, nor should we assume that, without our help, all our graduates will be able to demonstrate their competency in them when required to do so by their future employers.

Although the list of skills that employers desire of their graduate recruits is extensive, employers still emphasise the importance of the ‘basic skills’ of literacy, numeracy and ICT. Yet, despite the importance that employers and society as a whole attach to these skills, employers of graduates as well as non-graduates continue to voice concerns about the poor levels of competency in literacy and numeracy demonstrated by some applicants.

In a recent survey, although members of the Institute of Directors (IoD) were generally impressed with their graduate recruits' honesty and integrity, ICT skills, reliability, team working, work ethic and punctuality, they were far less impressed with their literacy and numeracy skills (IoD, 2007). The 500 members surveyed ranked literacy and numeracy skills as the second and sixth most important respectively out of a list of twenty-eight skills and attributes. But, rather worryingly, 18–21% of respondents believed that these basic skills are only 'occasionally' or 'never' demonstrated by graduates (IoD, 2007). In addition, in a recent Confederation of British Industry (CBI) survey, 27% and 23% of respondents indicated that they had to invest heavily in remedial training in basic literacy and numeracy skills respectively (CBI, 2008).

A deficiency in numeracy skills can prove particularly problematic. Numeracy has many definitions, but what all have in common is the emphasis they place upon the use of mathematical knowledge and skills in a variety of practical contexts. For this reason a lack of or deficiency in numeracy skills may affect not only an individual's academic progress and future employment prospects, but also many other aspects of his/her life.

The final comment above highlights one consequence of employers' experiences with regard to their graduate recruits' numeracy skills – they are increasingly adopting a variety of test procedures aimed at ascertaining applicants' skills competencies. Many assume that any individual (graduate or non-graduate) possessing a minimum of grade C in GCSE Mathematics will be able to pass such tests with little difficulty – sadly, this is a false assumption.

Employers' numerical reasoning and computation tests (often timed and without the use of calculators) pose an insurmountable challenge for many graduates, particularly (although not exclusively) those from academic disciplines which find it difficult to accommodate numeracy skills within their undergraduate programmes of study.

Graduates from such disciplines may have had little, if any, explicit opportunity to practise and/or enhance their numeracy skills since their compulsory secondary education. Graduates from some of the more numerate disciplines may fare no better in such tests.

Empirical studies, including several completed at QUB (e.g. Tariq, 2000; Mulhern and Wylie, 2004; Malcolm and McCoy, 2007), reveal that even many numerate disciplines (including the physical sciences, biosciences, psychology, pharmacy, nursing and engineering) find their undergraduates ill-prepared for the mathematical demands of the curriculum.

Irrespective of the academic discipline from which students graduate, employers expect their graduate recruits to demonstrate a minimum level of competency in those basic skills, including numeracy, essential to ensure their effectiveness and efficiency in their role within the workplace – and sometimes find their graduate recruits deficient in this respect.

The following sample of comments from graduate employers helps illustrate employers’ frustrations with the perceived overall decline in graduates’ basic numeracy skills:

- Many graduates are rejected without interview because of poor maths skills. (Bank or financial institution or services)
- We do find that even though our tests are pre-GCSE standard, around half of candidates fail. (Bank or financial institution or services)
- Stronger on the use of software than the underlying principles. (National government)
- Not all understand scientific notation. Not all understand how to convert between different units of measurement. (Consulting firm)
- Despite requiring Maths GCSE, min grade C, for all our Officer candidates (majority are graduates) we have introduced a psychometric test to ensure they have the right standard for Numeracy and Literacy. (Armed forces)

(reproduced from the Every Student Counts NTFS project, 2007–2010)
An Inspiring Collaboration

Samantha J Taylor, Teaching Fellow
Centre for Biomedical Sciences Education

Last year, the Anatomy Department became involved in a collaborative project with artist Sylvia Grace Borda, then Lecturer in Photography and Visual Studies, together with guest artist Keith Donnelly and a group of enthusiastic ‘Film Studies and Creative Writing’ students. This project was an attempt to interpret creatively a collection of anatomical specimens held by Queen’s.

Students were apprised of the nature of the collections of historical and archived material within Anatomy and, following this introduction, two students – Sarah Gale and Helen Madden – visited the department to observe and analyse in more detail a range of specimens including microscope slides, historical records and an array of specialist plastic anatomical models.

You might ask why a teacher of anatomy would be interested in such a collaboration. The answer lies in creative interpretation – the focus of the ‘Re-COLLECT-ing’ exhibition launched by the Naughton Gallery in June 2008, and led by Sylvia Borda and Sinead Morrissey (School of English).

What was fascinating to me was how these two students from Arts disciplines embraced and conversed vividly about our collections – their interpretation of histological images (sections of tissue viewed under the microscope) for example, was one of patterns as opposed to the Histologist’s view of definitive cell and tissue structure.

Helen Madden commented that: “the exhibition enabled me to connect with other disciplines within the University. I chose to work with the Anatomy Department because I made a creative connection with the subject when it was introduced to me. When I write, I explore the endless possibilities of the human condition. When I looked at the human body through the anatomist’s eyes I saw a new reality of what it is to be human. I experienced a new sense of myself and others. I felt a profound connection to the people I know and also to the millions whom I will never know. I still revisit, in my head, the experience of my visit to the Anatomy Department and discover again the endless possibilities of my potential.”

This collaboration was personally inspiring as I witnessed how these students spoke of the collections with animation and how their work culminated in an outstanding display within the Naughton Gallery. I found it extremely rewarding to encounter such a reaction from students outside of the medical and scientific disciplines.

As Sylvia Borda has highlighted, “Anatomy and the Special Collections (The Library at Queen’s) were able to work effectively with the visiting artists, creating an informed platform to assist the group in better understanding how to interpret teaching collections and biomedical histories from early print sources to the latest scientific models. As a result of the efforts, Anatomy and the artists worked together collectively to co-author and produce an experience for the public to respond to.”

In our enthusiasm to encourage students to demonstrate their creativity, innovation, entrepreneurship, enterprise, management and leadership skills, let’s not lose sight of the importance of providing all our undergraduates with intra- and/or extra-curricular opportunities to practise and, where necessary, further develop the basic essential skills employers continue to regard as more important.


Remove the ‘fear factor’ from first-year laboratory practicals – use videos!

In a previous Reflections article ‘Supporting first year student learning in laboratory practicals’ (Green et al., 2008), the authors reported preliminary findings on the potential of instructional videos showing laboratory equipment and procedures for use in pre-practical tutorials with students. These authors indicated further development of such support was planned through the Centre for Excellence in Active and Interactive Learning (CEAIL) in Biosciences with the aim of reducing the ‘fear factor’ experienced by first-year students using laboratory equipment for the first time.

The CEAIL has now been involved in producing two videos for practicals on ‘Water holding capacity of meat’ (‘Meat’) and ‘Egg quality’ for the Level 1 module Composition of Foods. Both videos demonstrate the general step-by-step procedure of the practical with particular emphasis placed on highlighting the appearance of apparatus, its operating procedure and how to record data.

A ‘shooting script’ was prepared by Dr Karen King, the module co-ordinator, to ensure the equipment was clearly shown and that procedures were shown step by step. For example in the ‘Meat’ practical, students are required to measure the pH of small cubes of meat following treatment in different concentrations of acetic acid solution and the video clearly shows the pH electrode being lifted out of the storage solution, washing with water, excess water removal, placing the electrode into the meat cube, stabilisation of the pH reading, removal of the electrode and washing again with water, removal of excess water and replacing in the electrode storage solution. This was all necessary as students (in Queen’s) have not used a pH meter before this practical.

In the ‘Egg quality’ practical, students use a ‘spherometer’ to measure the height of the egg white and egg yolk and this was clearly demonstrated on the video, including how to take a reading off the graduated scale.

The videos were filmed by Dr Joe Quinn from the CEAIL (Biosciences) on a low budget video camera and produced in visual format only i.e. with no voiceover or sound. To add explanatory information, text slides were inserted to explain each step. The ‘Meat’ video was 10 minutes and the ‘Egg Quality’ 17 minutes long.

The videos were shown in a pre-laboratory tutorial with commentary from an academic member of staff and the ‘Egg quality’ video was also made available to students online prior to the practical session.

Student response

Students were asked to complete a questionnaire rating a number of statements about the ‘Water holding capacity in meat’ and the ‘Egg quality’ video and to give general comments on the ways the videos helped them carry out the practicals, which aspects they found helpful, how it helped their understanding of the practical, how it could be improved and any additional comments.

For the ‘Meat’ video 100% of students (n=32) found the video easy to follow, relevant and helped their understanding of what was expected in the practical, whilst the values were 92%, 100% and 92% respectively. For the ‘Egg Quality’ video (n= 25), 97% and 96% respectively, thought the video showed the right amount of detail and 91% and 96% respectively, would like to see the videos online before participating in the practical.

One hundred percent, (100%) (n=28) and 95% (n=21) thought the videos had helped with the procedures, 32% (n=28) thought the section on how to use a pH meter in the ‘Meat’ video was helpful as they had never used one before and 94% (n=31) and 100% (n=18) respectively, felt the video had helped with their understanding of the practical.
Anonymity option now available in TurnitinUK Plagiarism Detection Tool

Gill Kelly, CED

In response to national demand (including representations from Queen’s), the developers of the TurnitinUK plagiarism detection software have created an option for students’ work to be viewed anonymously by the tutor.

When creating an assignment, the tutor will have the option to turn anonymous marking ‘on’. The students’ identities will not be shown in the tutor’s inbox although the tutor will be able to view the uploaded assignments and their associated originality reports in order to carry out assignment marking.

At a chosen date after the assignment deadline, the authors’ names will be revealed. (In the rare event that a School or tutor would need to find out the identity of an author in the period set for anonymous marking, there is the possibility of doing so, but the system requires staff to record a short reason for over-riding the anonymity and the system administrator is notified).

This anonymity option will help Schools that use TurnitinUK meet QAA recommendations with regard to anonymous marking.

From the student comments it is evident that, unlike staff and demonstrators, they cannot visualise carrying out the practical when reading the practical handbook. This is presumably because of their limited experience of working with laboratory equipment and in a laboratory which means the visualisation through the videos is particularly important.

Teaching staff found that the laboratory sessions ran very smoothly, with less basic, technical questions being asked by the students; students were more confident and competent in all aspects of the practical (use of the equipment, the sequence of the methodology and the recording of data) and the practical class was completed in a shorter time without compromising the quality of work.

Overall, the use of a video to inform students about practical techniques proved to be highly successful and it is clear from the student and staff comments that this method does remove the ‘fear factor’ from students in laboratory practicals.

As a consequence, the CEAIL (Biosciences) is planning to expand its production of videos for Level 1 practical classes.

For further information contact Dr Joe Quinn, CEAIL (Biosciences), joe.quinn@qub.ac.uk

References

Green, B., King, K. and McAteer, N. (2008)
Supporting first year student learning in laboratory practicals.
Reflections December Issue, 8–9

Student comments

How did the video help in preparation for the practical class?

‘Able to see what was expected in the practical so it was quicker and easier to carry out’

‘Put the practical into context and let me understand what was expected during the practical’

‘Showed clear step by step guidance, easy to follow’

‘Understood exactly what to do, knew how to use the equipment’

‘A visual indication of the experiment triggers the memory when faced with the equipment’

‘I could actually see what to do rather than just reading it on the page’

‘Less assistance was needed from demonstrators. Practical ran more smoothly as knew exactly what was expected’

‘It helped me carry out the practical faster, was a lot clearer than the method in the practical manual’

Additional comments

‘Would be helpful to have a video for every practical’

‘I enjoyed the video; it was a nice break from the tutorial and very helpful. Thank you’

‘I found the video helped me gain a better understanding of the practical’

‘Very good video, stimulated my interest’

‘It is a very good way of teaching for a practical’
What is a wiki?

A wiki is a type of website that allows the content to be quickly created or changed. A number of users can have access to a wiki and contribute to the information it contains. As wikis are collaborative in nature they lend themselves to group projects, where different individuals have to contribute work to produce a final assignment. In addition, within the same space they have the facility to comment upon and discuss changes as they are made.

The history of the wiki’s creation and modification is readily available to view. This allows students to revert to an earlier version if preferred. Lecturers can use the history as a way to keep track of students’ contributions. The discussion can provide a record of which students generated influential ideas or were most proactive within the group.

When am I likely to use a wiki with students?

• To support a group project or help students present the final outcome of a project (as above).
• To encourage the collaborative creation of an online resource on a topic or theme (e.g. a dynamic reading list).
• To help collect and present information as part of a shared research task (e.g. summaries of findings and relevant web links).
• To encourage collaborative discussion, analysis or reflection on resources or materials present in the wiki (e.g. video clip, image, sound file or text).

What are the advantages of wikis?

Wikis provide a quick and easy way to manage and share information. They can be used to facilitate more effective group work. They have advantages over other methods as they:

• are easy to use with minimal instruction and without having any technical expertise;
• allow tutors to see the history of the document and judge each student’s contribution;
• enable all elements of the group activity to be gathered in the wiki. These can be accessed from anywhere giving students flexibility.

Using a wiki successfully

Successful wikis need all members to make contributions. Other users are able to read what has been written and make changes. It is important for students to realise that their ideas and comments may be changed by others. In this way the information is refined and developed into the ideas of the group as a whole.

Wikis are not intended to be a substitute for face-to-face meetings but their use may reduce the number of meetings required. Student users have commented that the wiki allowed them to come to meetings better prepared.

How do I create wikis for students?

Wikis are easy to set up and manage. If you would like further information about creating and using wikis to support group work contact:

Bob Wylie (bob.wylie@qub.ac.uk) or
Gill Kelly (g.m.kelly@qub.ac.uk)
Centre for Educational Development

Relevant Articles

7 things you should know about wikis (2005)
Learners’ attitudes to wiki technology (2008)
Wide open spaces: wikis, ready or not (2004)

“The wiki was a beneficial way to communicate with the group and keep everyone up-to-date, and share information.”

Using wikis to support teaching

Bob Wylie and Gill Kelly, CED
Assessment and Feedback: Making it work for you and your students

Susan Shields and Alison Skillen, CED

On 19 & 20 May 2009, Queen's hosted a 2-day conference on the theme of ‘Assessment and Feedback: Making it work for you and your students’. The conference, organised by the Centre for Education Development, featured two national speakers and six parallel workshops covering subjects such as making feedback effective; assessing skills within the curriculum; academic assessment of work placement; feedback as a critical component of learning; and using online formative assessment to enhance student learning.

The National Student Survey exposed Assessment and Feedback as the lowest rated aspect of the student learning experience within Queen's and therefore improving assessment and feedback is a priority for the institution, given its impact on student learning. The conference explored how to make assessment and feedback practices more effective for academic colleagues and for their students.

The timing of the conference in May proved popular and attracted almost 100 delegates each day ranging from Queen's, Stranmillis University College, the University of Ulster, the Open University and academic colleagues from the Republic of Ireland, some of whom are members of the All-Ireland Society for Higher Education (AISHE).

Dr Chris Rust, (Oxford Brookes University) is the Head of the Oxford Centre for Staff and Learning Development and is Deputy Director of the Human Resources Directorate. He is also a Deputy Director of two Centres for Excellence in Teaching and Learning at Oxford Brookes - ASKe (Assessment Standards Knowledge Exchange) and the Reinvention Centre for undergraduate research.

In response to the conclusions of the Burgess Report and wider concerns about assessment practice, ASKe created a manifesto for change, with six tenets. Chris opened the conference by summarising the thinking behind the manifesto, why change is needed and explored the reasoning behind each of the tenets.

Chris’s interactive workshop session provided a theoretical model underpinning the importance of student engagement with assessment and considered a range of practical examples and case studies of how to put the model into practice. He advocated getting together communities of practice from different institutions and disciplines as a step towards developing common standards of assessment.

The keynote address and workshop was followed by three parallel workshops, which were repeated to allow delegates the opportunity of attending two of the sessions.

Day two was opened by Professor David Nicol, (University of Strathclyde). David is currently Deputy Director of the Centre for Academic Practice and Learning Enhancement at the University of Strathclyde and was the Director of the £1m REAP project (Re-Engineering Assessment Practices).

In his presentation: ‘From monologue to dialogue: enhancing feedback on student learning’, David argued that in mass higher education, written feedback, which is essentially a monologue, is trying to carry the burden of dialogue between the teacher and the student. He suggested that this was distorting feedback mechanisms and pushing students towards a passive approach to learning. Dialogue must be reintroduced in learning by rethinking the sources, form and timing of feedback and the role of the student in these processes. David provided the delegates with seven principles of effective feedback as well as examples of technology-supported practices.

David’s interactive keynote session: ‘From principles to practice: improving feedback in the disciplines’, provided 12 principles of formative assessment and feedback practices providing delegates with numerous theories backed up by research from several disciplines.

Following this, three different parallel workshops (repeated) were provided.

The plenary at the end of the conference was facilitated by Professor David Nicol and Dr Chris Rust and this provided an opportunity for valuable discussion and feedback from delegates. In response to the question ‘What was the most useful thing you will take away with you?’, delegates responses were:

‘Being able to say to students: “this is feedback”’

‘Asking students what they want feedback on’

‘Feedback is complicated – unhappy students do not learn well’

‘Lots of evidence-based ideas to try out – very exciting – but being careful not to “experiment” on students’

‘Enhancing peer feedback and the learning experience by integrating some of the principles suggested by David Nicol’

‘The importance of making terms such as “learning outcomes” transparent so that our students can understand them easily’.

The PowerPoint presentations from the keynote addresses from this year’s conference, in addition to the conference programme, can be downloaded from the CED website at www.qub.ac.uk/ced
The Counselling Service for students is located on the 2nd floor of the Student Guidance Centre. This means that we now rub shoulders in the corridor with other support services for students, such as, Careers, Employability and Skills (CES), Admissions, Disability Services, Student Records, Widening Participation etc.

Each of these services represent the University’s response to specific student needs across the lifespan of their time of study at Queen’s. The particular role of the Counselling Service is to try and ensure that emotional distress and/or mental health difficulties do not stand in the way of academic achievement and personal development.

That emotional and cognitive development go hand in hand is true across the lifespan and this clearly has consequences for our students. The fact that emotional health is a necessary concomitant of optimum intellectual functioning and development is now well recognised.

Emotional distress, whether anxiety, depression, grief and loss, or low self-esteem, robs the individual of the resources necessary to think clearly, remain focused and motivated and engage with conceptual understanding. Emotional distress clutters our mind and shifts our focus, demanding as it does so much of our time and attention. Depression, in particular, causes us to coil inwards, resulting in disengagement and reducing communication with others.

Unfortunately, there is a stereotype of students as happy-go-lucky, beer-swilling hedonists. This is far from the truth. Students who engage in heavy alcohol consumption often do so in order to mask emotional difficulties, attain peer acceptance and convince themselves, and others, that they are having a good time. Many students experience isolation and find it difficult to feel connected to such a large institution.

Leaving the relative security of family life, and the structure and communion that school offers, combined with the expectation that you will have ‘fun’ at University, and be successful academically, often induces anxiety amongst new students. University life means less engagement with teachers, more independence and less structure. This often results in isolation, confusion and vulnerability.

Academic success is more than ever about communicating one’s work to others and developing personal skills to apply the benefits of education to the real world. Confidence and self-esteem are key to enhancing student participation in tutorials, for example, and enhancing student access to other important resources such as the CES. It is important that the student experience at Queen’s has a lasting influence in raising their life chances in the workplace.

Our main purpose is to contribute to student retention and academic progress. We pursue these goals largely by providing one-to-one counselling support to students accessing our service. In addition, we facilitate workshops for staff on how to recognise and respond to student distress. We also provide support to staff who have concerns about particular students. Tutors, for example, often contact us to discuss their role in supporting a student and how they might most usefully respond.

Queen’s is, in fact, a very supportive environment for students, providing appropriate care and support without taking away the individual student’s self agency. Support needs to be empowering as the ultimate goal, whatever a student’s difficulty, is that the student feels confident in their own capacity to manage their lives and achieve positive personal and career goals.

The University is constantly seeking to develop provision to support academic achievement and retention. A recent development is the Mental Health Strategy (MHS) shortly to be implemented. The significance of the MHS is the enhancement of the University environment so that it feels safe and non-stigmatising to seek support and in which mental wellness is promoted for all our students.

The Counselling Service has a particular role to play in this but so also do all members of staff in the University. The principles underlying the MHS are those of prevention and universality.

Rather than merely trying to identify those students with difficulties and targeting support resources at these specific individuals, the MHS will aim to create an environment which promotes well-being for all our students, reduces the stigma sometimes associated with seeking support and promotes tolerance and understanding.
Nearly 400 students a year request one-to-one counselling support, that is, one in sixty students attending Queen’s. The most common presenting problems are anxiety (28%) and depression (18%).

80% of those attending counselling are undergraduates and 12% are PhD students. Gaining access to university is not a real opportunity for those with mental health or learning difficulties unless they find themselves in a climate in which they feel accepted and understood. We all have a part to play in making this more possible.

The Counselling Service is a testament to the fact that emotional distress impacts very negatively upon a student’s capacity to study and learn.

Additionally, because academic study is ‘heady stuff’, the intensity of university study and the striving to excel can exacerbate existing mental health difficulties, or evoke an experience of, for example, depression.

This, I feel, is even more the case today when students have the added pressures of voluntarily amassing huge debts and worrying about their future career prospects in this time of recession. Sadly, there are still many students who remain unaware of the support options they can access or who only find their way to that support when their difficulties have already reached crisis point.

% of Clients in each Category of Difficulty: QUB and other UK Old Universities 2003 - 2004

Student Difficulty as a percentage of All Students Attending Counselling September 2004 - January 2005

Contact Details
Tel: 02890972774
Email: counsellor@qub.ac.uk
Location:
2nd Floor, Student Guidance Centre
Hours: 9am-5pm, Mon - Fri
Our web page can be accessed through the Student Guidance Centre webpage:
www.qub.ac.uk/directorates/sgc/
How to improve student attendance, engagement and achievement...

Get flexible!

Dr Karen King, Centre for Active and Interactive Learning (Biosciences) and Institute of Agri-food and Land Use (IAFLU), School of Biological Sciences.

Greater student learning is achieved when knowledge is obtained by sharing, problem solving and creating, due to higher levels of active student engagement [1]. Interactive techniques can benefit the learner directly by eliciting and/or (re) processing content, which deepens understanding and lengthens retention and benefits the teacher as it allows feedback that can improve learning [2].

Within the degree programme Food Quality, Safety and Nutrition (FQSN), active and interactive learning environments for students are supported by using the Flexible Teaching Space, PFC307. The room has been used for selected sessions within eight modules or half modules during 2008-9: one module and two half modules at Stage 1, two half modules at Stage 2 and two modules and one half module at Stage 3.

The room enables up to 60 students to work in groups ranging in size from two to eight around ‘circular’ tables with access to record their work either on white boards or tablet PCs with projection onto plasma screens. This physical structure encourages student discussion and enables the lecturer to assess student learning and understanding, without interrupting the groups, and give direct, tailored support to each group. Although the tables are quite close, student groups rarely copy from one another. When it does occur, it usually indicates the students do not understand what they should be doing and the lecturer can respond by asking the students and giving further advice.

The nature of active and interactive teaching changes the students from passive to active learners and supports them in taking responsibility for their learning. In FQSN, we have introduced active and interactive learning (AIL) to students at Level 1 to support their transition into university. The Flexible Teaching Space (FTS) has been key to the success of this strategy. In a survey of Level 1 students, 100% indicated the activities they did in the room helped them learn and that they did not think these activities could be carried out as effectively in other rooms (43% indicated this was due to the design of the room and 29% indicated it was due to the atmosphere in the room) and 100% were satisfied with their overall learning experience in the room.

The students respond to the physical structure of the room. They like the ‘comfortable chairs’, the ‘layout of the chairs and tables which facilitate group work’, ‘the more relaxed, comfortable atmosphere’ and ‘working on the whiteboards and with the tablets’. They become more engaged with their learning and more willing to participate – ‘Seemed easier to talk out loud and get involved more in classes’. As a consequence, the relationship between the students and staff changes to one of a learning partnership as the students begin to take more responsibility for their learning.

Our experience has shown that, whilst staff may be reluctant to use the room initially, once they do and see the benefits to student learning and teaching in this environment, they want to use the room more and more. Due to the demands on the room, we have facilitated this by sharing some weekly time slots between several modules or half modules within one semester, altering the timetable to include time slots of no demand e.g. Friday afternoon, lunchtimes and by taking up occasional ‘single’ sessions in weeks other classes are not scheduled.

Effective teaching in the room does require planning for each session such that interactive activities take place. This can be very straightforward i.e. providing questions in advance via Queen’s Online (QOL) which students then discuss, writing their answers on whiteboards or the tablets or students reading material in class and then completing an activity which tests their knowledge and understanding of the material.

These activities can also demonstrate how information can be shown in different formats i.e. tables or diagrams rather than text (which may help learning) or can be used for practice of examination questions. Other sessions involve interactive PowerPoints, or problem-based learning. In the latter case students are given a problem and, working in groups, have a template to complete indicating what they need to find out. This is submitted to QOL before students leave the session. Feedback is then given within 24 hours. Students work outside the class and submit an individual report (to QOL the day before the next session). This is assessed, based on what they agreed to find out and the problem.

During the next session, students working in their groups discuss and agree their final conclusions on the problem. These are submitted on a template to QOL 90 minutes into the session and assessed. Feedback is given immediately by one group presenting to the class with lecturer input, (30 minutes) and the next problem is then given to the students.
This improvement in attendance has been even more significant in a Level 2 module Food Commodities which has been taught using problem based learning in the Flexible Teaching Space since 2007–08. In this case attendance at teaching sessions was 100% in 2008–09. (Table 3).

Active and interactive learning encourages students to develop self study skills, learn through discussion with peers and take responsibility for their own learning. The students are motivated by such learning which is reflected in their improved attendance and achievement. The Flexible Teaching Space provides the ideal environment to achieve this.

Student engagement, attendance and achievement are high on the agenda of the University and academic staff – can the University afford not to provide more such facilities and can academic staff afford not to ‘Get flexible’?

References


More information about the Flexible Teaching Space can be obtained from Gill Kelly, CED. (g.m.kelly@qub.ac.uk)
An Enterprising Initiative

In November 2007 Queen’s Students’ Union took another step in visibly committing itself to supporting the creation of entrepreneurial graduates

November 2007 marked the launch of Enterprise SU, a hub for information relating to enterprise and employability opportunities for Queen’s students both on and off campus.

Since then the space has been developed as an informative social and dialogue space, most importantly, in an environment that is reflective of the user: students.

Its plasma screens and notice boards display information on a variety of extracurricular opportunities to students: enterprise competitions and awards, volunteering opportunities, careers fairs and accreditation possibilities.

The space is ideal for hosting events that require student engagement and has facilitated many since its opening, such as Careers Roadshows, employer presentations, society events, idea generation workshops and enterprise events.

Clubs, Societies and University departments can use this space as a means of promoting the activities they are engaged in and that are beneficial for students to get involved with. It also offers a Student Business Clinic, meaning students interested in exploring the option of starting a business can receive advice, signposting and mentoring to help turn their ideas into a reality.

Empowering students to make their mark

Although traditionally the support provided by the Students’ Union has related mainly to extracurricular activities such as clubs and societies, the addition of this enterprise and employability space has seen a stronger link to supporting the Employability and Skills agenda of the University through academic support. The level of interaction with students through Enterprise SU as a medium has led to the integration of typically extracurricular activity being introduced to the classroom environment.

The Students’ Union Societies and Enterprise Co-ordinator, Denise Murtagh, works closely with NICENT Teaching Fellows David Gibson (NTF), Aisling Harkin and Jonathan Scott who embed enterprise education in the curriculum at Queen’s.

The group has gained Teaching Quality and Enhancement Fund (TQEF) funding to utilise social enterprise as a vehicle to embed enterprise and employability skills, empowering students to make their mark in society. This has led to the development of a new student society at Queen’s, Students in Free Enterprise (S.I.F.E), the first in Northern Ireland and indeed the island of Ireland itself. S.I.F.E is a global, not-for-profit organisation whose student societies take on projects that have a social and economic impact on communities.

Students in Free Enterprise

Amongst the growing demand for graduate skills such as entrepreneurship, creativity and leadership in what is now a very dynamic and competitive global market, this collaborative project offers ‘Enterprise for life’ skills through innovative and best practice pedagogies, together with a suite of complementary experiential learning activities presented in a social enterprise context. It has the potential to significantly enhance the employability of students and represents a very valuable supplement to their degree.

It also offers an ideal opportunity for students to collaborate with industry and engage in valuable workplace learning, in addition to encouraging students to engage in personal development and action planning through self-assessment and reflection exercises on their PDP e-folio and accreditation through Degree Plus and the Queen’s Employability and Skills Award. Ultimately, this program will empower students to make their mark on both their local community and career development.

The project has demonstrated success so far with the S.I.F.E team being one of only two rookie UK university teams to proceed directly to the semi-finals of the UK National Competition where they will compete against experienced teams in front of the top business people in the UK.

Both NICENT at Queen’s and the Students’ Union are supporting these students in developing their projects. These focus on entrepreneurship, personal success skills, business ethics and demonstrably meet a social need or problem within a community of their choice that interests them, thereby empowering the students to make their mark and to make a positive impact on communities.

The S.I.F.E. students have so far taken on an international project in Uganda supporting orphans through education, they support the Student Debt Advisor through a financial

Denise Murtagh,
Societies and Enterprise Co-ordinator,
Students’ Union
Postgraduate Research Poster Competition

Ruth Buchanan, Postgraduate Office

On Thursday 19 March 2009 some 130 research students from across the University participated in the Queen’s Poster Competition.

The event was open to 2nd and 3rd year research students and required them to summarise their research in poster format to a non-specialist audience. Prizes were awarded to the top three posters from each Faculty area.

In opening the event, Trevor Newsom, Director of Queen’s Research and Regional Services said: ‘The competition allows students to showcase their research to non-experts as well as peers, and promotes wider research interaction between disciplines throughout the University.’

The posters were reviewed by a panel of judges including Professor Sean Gorman, Dean of Medicine and Health Sciences, Professor Tom Millar, Dean of Engineering and Physical Sciences and Dr Jennifer Brennan from the Irish Research Council for Science, Engineering and Technology.

The prizes were presented by Professor James McElnay, Pro-Vice-Chancellor for Research and Postgraduates and the competition sponsor Hewlett Packard.

The winners, who received laptop, desktop and handheld PC prizes were Nicola Ingram, Lucas Schaper and Michael O’Rorke (first), Tomas Adell, Heather Montgomery and Feras Darwish El-Hajji (second) and Kate McFarland, Nuala Livingstone and Paul Buchanan (third).

For further information on this article please contact Societies and Enterprise Co-ordinator, Denise Murtagh, d.murtagh@qub.ac.uk
Firms offer simulated workplace experiences: what are the benefits of short structured visits?

Roisin Copeland,
Senior Careers Adviser,
Careers, Employability and Skills

The Student Study Tour of London Law Firms January 2009

Careers, Employability and Skills continues to develop the quality and variety of student workplace experience through structured visits to London firms. This year there were two tours, Finance and Law, taking place in September and January respectively.

In 2007 there were 12 students on a four day tour of London Law firms. This year there were four times as many applicants and 25 students were selected to participate in the January 2009 tour.

The increase in student interest in gaining workplace experience, particularly with graduate recruiters, is of no surprise, but the popularity of the short structured visits afforded by the tour has distinctive benefits acclaimed by all parties involved in the annual collaboration.

Structured short visits to firms

Careers, Employability and Skills (CES) negotiate the content of the visit with the Law firms and their recruitment personnel to provide a diverse and unique experience. The half-day visit with each firm provides at least a two-hour interactive workshop enabling students to practise a legal skill, such as advocacy, or work in teams to resolve a complex client legal issue.

Trainee lawyers and alumni facilitate case studies, role plays and business games in a competitive environment with prizes for the successful team or individual. With a total of 10 firms visited in one week the students were challenged to experience and assimilate the dynamic of workplace skills, practices, people and environments.

The Benefits to Students

The students who participate in the tour are required to attend pre-, post- and dissemination tour workshops with CES to prepare for and review the experience which they capture in a reflective learning log.

The outcomes which they attribute to the weeklong experience range from ‘highlight of my academic career and university life’ to specifics such as ‘identified the area of law to practise in’, ‘distinguished between the work culture of large versus smaller enterprise’, and ‘feel more confident in writing feasible and coherent applications and selling myself as an individual’.

The Benefits to Employers

In 2007 there were eight firms visited and this year we accommodated 10 firms by visiting two in the evening, but we also had to turn down two prestigious firms.

The recruitment staff and lawyers are impressed by the calibre of our students, the Russell Group status and the proactive approach that CES takes in developing the tour experience.

Our students who subsequently apply to the firms demonstrate what they have learned by successfully competing in the recruitment selection process and consequently extend the numbers of Queen’s alumni in London.
The Benefits to HE Institutions

The short structured visits are an excellent model of providing students with careers education, information and guidance in a focused, fun and interactive way.

Despite the fact that only 25 students could participate in the direct learning experience, there are a number of on-campus dissemination events which the tour students provide with CES.

These include an immediate post-tour event which attracted 60 students, to an evening of sharing the experience in the Student Guidance Centre (see photo) and various promotion presentations to different year groups.

In conclusion, there are significant benefits to be gained for students, employers and HE institutions in collaborating to develop short structured experiences which simulate the variety of workplaces, skills, people and environments to enable students to make informed career choices.

Student Quotes:

“opened my mind beyond life as a local solicitor or barrister in Belfast…to a deeper understanding and knowledge of corporate legal environment, culture and ethos…an alluring – work hard – play hard – mentality”

“It was easy to see the grand scale of some city law firms as we toured 30-storey buildings with gyms, swimming pools and sleeping pods. However, any notion of these firms being impersonal and ungenial was quickly counter balanced by the down-to-earth and hard working nature of the employees. Life in a city law firm was a feasible and attractive option”
Recognition, understanding and interpretation of morphological patterns are important skills for those undertaking research in bladder cancer and for medical students.

We have developed a self-directed on-line learning module to enhance pathology skills for medical students participating in the Phase 3 Student Selected Component ‘Bladder cancer diagnosis and management’.

One hundred and twenty slides of bladder tissue or cytology were screened by a pathologist (OS) to confirm diagnoses and quality of tissue preparation. A range of lesions reflecting the spectrum of bladder cancer, pre-neoplastic conditions and associated pathologies were identified, tabulated and organized into three progressive levels. Appropriate slides were selected for special stains or immunocytochemistry to highlight or discriminate important features. Key features were annotated for self-directed learning at each of the three progressive levels. Slides were scanned at x40 using an Aperio Scanscope T2 and served, annotated and viewed on-line using the PathXL virtual slide content management system and server (i-Path Diagnostics Ltd.).

Lectures corresponding to each level are delivered by a pathologist (DO’R) either before or after the medical students view the annotated slides. Self-assessment in a Multiple Choice Question (MCQ) format tests competency at each level. The MCQs test the ability of the students to recognize patterns and morphological features and, at Level 3, test their ability to apply their learning to clinical scenarios. Students receive their scores instantaneously on completion of each assessment.

Level 1 overviews normal cells, layers and related structures that would be observed in typical bladder biopsies. Level 2 focuses on non-neoplastic lesions; namely inflammatory and pre-neoplastic. Level 3 explores malignant lesions, staging, grading, metastasis and anti-tumour immunity. Students receive lectures from clinicians on presentation, diagnosis and management of bladder cancer and each attend one clinical session. They also learn about the underlying theories of bladder carcinogenesis.

A Case Study assessment at the end of the module measures understanding of clinicopathologic correlations and pathological assessment skills.

On-line learning prior to attendance at the corresponding lectures enhanced participation and questioning at the pathology sessions. The students have requested additional annotations and instant feedback containing the correct answers for the self-assessment MCQs.

Students enjoyed the module. They reported that the on-line learning package enhanced their ability to recognize morphological features and increased their understanding about pathology. Students supported the progressive structure of the on-line course. Overall they felt that virtual microscopy was complementary, but should not replace lectures.

Virtual microscopy supported by PathXL is a valuable adjunct to traditional teaching methods. We intend to evolve the bladder cancer module continuously and to create future modules for prostate and cervical cancer. We hope to use these modules at both the undergraduate and postgraduate levels.

The authors acknowledge funding from the Teaching Quality Enhancement Fund, Queen’s University Belfast for establishment of this course.

A self-directed learning package in bladder cancer pathology using virtual microscopy

O Sharaf (OS), Eldin Conway Institute, UCD; P Hamilton, J Diamond, D McCleary and K Williamson, Biomedical Imaging, Medical Biology Centre, QUB; D O’Rourke (DO’R), Department of Pathology, Belfast Hospitals Trust; and B Duggan, Uro-oncology Research Group, Centre for Cancer Research and Cell Biology, QUB.
On 8 December 2008, the Great Hall was converted into a ‘drop-in centre’ where academic colleagues could drop-in for five minutes, or as long as they wanted, to find out about some of the project work supported by the Teaching Quality Enhancement Fund (TQEF).

This Fund was established with the support of the Higher Education Funding Council for England (HEFCE) and the Department for Education and Learning (DEL).

The initiative, promoted by the Centre for Educational Development, ran over the last few years to support staff in enhancing the quality of learning and teaching. In the last three rounds of funding Schools and academic support areas were invited to address institutional priorities of Student Engagement and Employability and Skills.

The ‘drop-in centre’ attracted a range of academic colleagues who were interested in learning more about some of the activities and initiatives that could be adapted to enhance learning and teaching in their own Schools and areas.

During the event, TQEF project teams manned stands with literature and posters to promote what was happening in their particular project.

This was an opportunity to chat informally with colleagues, disseminate information on project activities and to give advice and support to others interested in doing something similar. Some of the topics on offer included:

- A smarter way to promote student engagement through attendance monitoring
- Computer Assisted Self-Assessment (CASA)
- ‘How to set up a work placement’ resource
- The development of a pilot peer support system
- Utilising Social Enterprise as a Vehicle to Embed Enterprise and Employability skills
- Postgraduate Skills as an Employability Strategy
- Enhancing Student Information Skills at Queen’s through a range of innovative online packages

Participants liked the Great Hall as a venue and the informal ‘drop-in for as long as you wish’ nature of the event.

Comments included:

‘The importance of TQEF in demonstrating to colleagues that some areas of the University still take innovative teaching and learning seriously and have lively and imaginative projects as a result of TQEF funding’

‘…for some of the projects there are clear commonalities with our work and I hope that my colleagues or I will be able to follow these up in the future’

‘I learned about other ‘ongoing’ projects which could impact positively on the development of my own role in the university’

‘…will pursue other projects linked to my role’

‘I was very interested in the student register idea from EEECS and will probably follow up on this for my School (SPACE)’

‘Good idea. You could focus on the presentations of particular interest. The information provided was sufficient to make decisions as to whether further exploration was warranted’

You can find out more about the projects on the CED website at: http://www.qub.ac.uk/ced
A recent research report identified the need for parent and professional training in Applied Behaviour Analysis, especially for families of children diagnosed with Autism Spectrum Disorder (ASD) (Keenan, Dillenburger, et al. 2007, download free from www.peatni.org). This report compares services available to these families in Northern Ireland and the Republic of Ireland.

The report shows that despite repeated autism reports, science-based treatment for children diagnosed with ASD is still not freely available in Northern Ireland. There are no schools based on the science of behaviour analysis, and training of professionals in this area does not adhere to international standards (see www.BACB.com). The same can be said about many other European countries.

In order to ameliorate this problem an innovative new multimedia teaching and learning project is now being developed and translated by an international team of researchers. The project was initiated and is led by Northern Irish researchers (Dr Mickey Keenan, PI; UU; Dr Karola Dillenburger, QUB) and parents (Dr Tony Byrne, Parents’ Education as Autism Therapists (PEAT)); and includes the University of Applied Sciences, Münster, Germany; Akershus University College, Norway; University of Oviedo, Spain; and The TreeHouse Trust, London. The project is funded through a 2-year LEONARDO DA VINCI European Grant. The initial meeting took place in early November 2008.

The project aims to develop and translate into European languages the SIMPLE STEPS multimedia package for parents of children diagnosed with autism spectrum disorder and professionals working with these families.

In the past, researchers thought that Autism Spectrum Disorder (ASD) was relatively rare, but recently worldwide concern has been expressed about a significant increase in prevalence rates. For example, the Center for Disease Control (2007) summarised that up to 6 in 1,000 children have ASD and that “… there have been studies that have found as many as 12 in 1,000 children with an ASD in Europe and Scandinavia.”

There is a wealth of research evidence showing that the science of Applied Behaviour Analysis (ABA) (www.behavior.org) offers the basis for the most appropriate intervention for persons with ASD. “To date, enough behaviourally-oriented Early Intensive Behavioral Interventions (i.e., teaching methods based upon ABA) have been conducted to suggest that not only is the approach effective, but as a congregate group of learning based methods, it stands alone as the only effective treatment(s) for young children with ASD” (Matson, 2007, p. 111; see also Myers & Johnson, 2007).

Studies documenting the efficiency of intensive behaviour analytic interventions indicated that cognitive functioning, language skills and academic performance improved, or exceeded normal levels, for many of the children who had received at least two years early intensive behaviour analytic treatment (Remington et al., 2007). This progress was maintained in the long-term and into adulthood (McEachin, Smith, & Lovaas, 1993).

Professional behaviour analysts are certified and regulated by the Behavior Analysis Certification Board (www.bacb.com). Unfortunately, training opportunities to international standards in behaviour analysis (i.e. to BCBA level) are sparse in the UK and the situation is even worse across the rest of Europe. One of the main aims of this project is to address the need for suitably qualified professionals in the science of behaviour analysis in Europe who can design, implement and monitor programs that address individual needs of children with autism.

In addition, the project is aimed at parents of children diagnosed with ASD. Parents of children with ASD are at a significantly higher risk of experiencing psychological difficulties than parents of non-disabled children (Bromley et al., 2004) or parents of children with other disabilities or chronic illnesses (Koegel et al., 1999).

“We are delighted to be able to base our work on the SIMPLE STEPS package that was developed over the past few years and is available free to parents of children with ASD and to professionals working with these families (from www.peatni.org). With the LEONARDO DA VINCI funding, we will now be able to develop the curriculum of this package and translate it into three European languages. This means that the package will be culturally sensitive to the contexts in which it will be used. QUB’s role in this process will be the contribution of expertise and the monitoring and evaluation of the process as well as the outcome of the two-year project.”

For further information or regular updates see www.peatni.org
The Study Skills Certificate
Augmenting Academic Proficiency

Tim Crawford
Learning Development Service

Background
Some students struggle with the transition from school (dependent learning) to university (independent learning); from knowing and remembering to analysing and researching. In September 2008 every first-year undergraduate student at Queen’s was given a copy of The Study Skills Handbook (Cottrell, 2008) which provides resources to promote self-directed learning, which comes under the remit of the Learning Development Service.

The Learning Development Service was established in September 2007 to provide free academic skills support to all Queen’s students. This has mainly been delivered through one-to-one appointments, with over 500 students seen to date. There are three full-time staff and four part-time postgraduate research students. The Learning Development Service team has, over the last two academic years, identified a number of generic issues that students have difficulty with and in recognition of this the Study Skills Certificate was developed.

Aims
The core learning outcome of the Study Skills Certificate is to help students manage their own academic success and this is facilitated by:

• Offering guidance and resources on how to tackle activities that many students find difficult;
• Nurturing critical and analytical thinking styles;
• Identifying current academic skills which are needed whilst at University;
• Evaluating and reflecting upon independent learning;
• Encouraging good study habits.

Structure
Students must attend a minimum of four workshops in an academic year to be awarded the Study Skills Certificate. There are a range of topics to choose from, including:

• Critical Thinking
  How to get the most out of your textbooks and research sources;
• Essay Writing
  Using the 5 Step Guide to develop strong, coherent arguments;
• Referencing and Plagiarism
  Demystifying plagiarism and how to reference properly;
• Time Management
  Making the most of your 168 hours per week;
• Presentation Skills
  Hints, practice and feedback to help you present with confidence and style;
• Exam Preparation
  Techniques for making the most of your knowledge when writing under pressure;
• Stress Management
  Find out how you can overcome anxiety leading up to and during exams.

Each workshop is offered several times throughout the year and takes place in the Student Guidance Centre or within the School. In order to create an optimum learning environment, there is a maximum of 20 students per workshop, with registration via the Learning Development Service website.

The Study Skills Certificate has the added benefit of being a Degree Plus accredited programme, available under the combined experience route (C).

Future Plans
Formative evaluation of our workshops has been very positive, and a summative evaluation is due to take place in June 2009, when students will have time to reflect on the impact of the Study Skills Certificate on their exam results. Interactive e-learning materials are also being developed to accompany the Study Skills Certificate and to help reinforce learning.

“excellent, well presented and professional”
“enjoyable, relaxed approach, easy to follow”
“clear, concise, practical help”
“one of the most helpful workshops I’ve been to”
“10/10”

Study skills develop through opportunity, practice, trial and error, feedback from others and reflection. The Study Skills Certificate provides an opportunity for students to improve their transferable skills and develop independent study skills. There is also an excellent opportunity for Schools to work in collaboration with the Learning Development Service to develop a subject-focused Study Skills Certificate. This can be delivered as part of the Personal Tutoring System under the group meetings that students attend in first year to promote effective transition to the academic challenges of university. Two Schools have to date taken this opportunity and the feedback has been very encouraging.

If you would like to discuss possible collaboration in the provision of academic support for the 2009/10 academic year please contact a member of the Learning Development Service team.

www.qub.ac.uk/sgc/learning
tim.crawford@qub.ac.uk
telephone 2874

Research Seminar Series 2009: Access and Success for All

THEME:
Enhancing Success for All Students

SPEAKERS:
Dr Phil Gravestock, Learning Enhancement & Technology Support, University of Gloucestershire
Anne Simpson, Head of Disability Services, University of Strathclyde
Sandra Griffiths, NTF, Queens University Belfast

WHERE:
Old Staff Common Room

WHEN:
23 June 2009, 10.30 am – 15.30 pm (lunch provided)
40 places available allocated on a first-come, first-served basis

To register for this event please contact: ced@qub.ac.uk

AISHE 5th International Conference Series

THEME:
Valuing Complexity: Celebrating Diverse Approaches to Teaching and Learning

Keynote Speakers: Dr Val Chapman, University of Worcester

Date: 27th & 28th August 2009

Venue: NUI Maynooth, Ireland

To register for this event contact AISHE or email Linda.King@aishe.org

AISHE is a professional society whose goal is to bring together and support those people who are concerned to advance higher education in the island of Ireland. It promotes the professional recognition and enhancement of teaching and learning in Higher Education through a range of activities including seminars, conferences, publications, and provision of online community forums and services.

For more information on AISHE please view the website. http://www.aishe.org