Enhancing learning and teaching in higher education in Wales

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Introduction

The Higher Education Academy (HEA) is committed to enhancing the student learning experience and championing excellent learning and teaching in higher education. While the HEA is a UK-wide organisation, it is set up to support and respond to priorities in the devolved nations. In Wales, the HEA is working with the sector and leading the Welsh higher education quality enhancement agenda to address the twin priorities for higher education, outlined in the Welsh Government’s For Our Future: The 21st Century Higher Education Strategy and Plan for Wales – supporting a buoyant economy and delivering social justice.

In the academic year 2010-11, the HEA offered grants of up to £2,500 to Welsh higher education institutions for learning and teaching enhancement projects that addressed the following thematic areas that also reflected the pan-Wales Future Directions enhancement theme – ‘Graduates for our future’:

- assessment and feedback practices;
- developing excellent teaching;
- education for sustainable development and global citizenship;
- employability and entrepreneurship;
- responding to the diverse student profile (international, part-time, mature, work-based learning, etc.);
- student engagement in curriculum design and delivery;
- supporting learning and teaching in HE through the medium of Welsh;
- widening access, retention and progression.

The HEA also offered grants of £500 for Welsh higher education institutions and further education colleges delivering higher education in Wales to host and deliver seminars that explored policies and practice in the following thematic areas:

- assessment and feedback (including giving effective student feedback, getting ‘more for less’ in assessment and feedback, assessment and flexible learning, academic integrity);
- student engagement and student voice;
- learning for employment (including employability and skills);
- learning in employment (including employer engagement, employee learning and work-based learning).

This report is a collation of the work carried out by individuals, departments and institutions that participated in the learning and teaching enhancement projects and ran seminars. The projects and seminars highlighted in this report demonstrate a variety of innovative initiatives that are being delivered across a range of academic disciplines. The report has been organised around the thematic areas that each project or seminar most directly addressed. Each individual report provides a brief overview or synopsis of the project or seminar. In some cases, more substantial data and methodological accounts of research are available at http://www.heacademy.ac.uk/wales/ourwork/alldisplay?type=resources&newid=nations/wales/E_Fund_Breifing_Reports&site=york, should you wish to read about any projects in more detail. The HEA hopes that you will find this publication useful for enhancing your learning and teaching practice in your particular context.

1 http://www.heacademy.ac.uk/wales/ourwork/qualityenhancement
1. Assessment and feedback practices

A. Institution-wide

By hook or crook? Issues and solutions in addressing unfair practice

Swansea University (seminar) – Paul L Latreille

Introduction and overview
The aim of this seminar was to provide a forum for a range of stakeholders – academics, administrative and support staff, together with student representatives – to come together to discuss a range of issues and solutions in relation to unfair practice by students. Importantly, it offered an opportunity for participants from these various constituencies to share and reflect from their diverse perspectives in relation to an issue of continuing concern.

Contributions to the seminar essentially covered four key strands:
- designing assessment to minimise opportunities for unfair practice;
- policy development in relation to unfair practice;
- supporting students, and in particular international students;
- interpreting the results of electronic plagiarism detection software.

Generation of evidence

The seminar deliberately sought a wide range of papers from stakeholders with differing perspectives, and included a literature survey/overview (Erica Morris), experiential/reflective/positional pieces (Luke James, Huw Morris, Karen Morrow, Ian Glen and Alasdair Montgomery), case studies of practice (Julia Fallon, Sandy George), and a hands-on workshop (Jane Thomas). The diversity of these offerings meant a range of methods had been used to generate findings; the precise approach and nature of any data dependent on the nature of the contribution. Methods included analysis of administrative data (Huw Morris, Julia Fallon), student performance data and feedback reports (Sandy George), survey data and focus groups (Julia Fallon), plus analysis of Turnitin reports (Julia Fallon, Jane Thomas).

Seminar findings

The seminar primarily drew on a range of existing material, although some previously unpublished statistics from cases at Swansea University were presented by the Academic Registrar, Huw Morris. These included information on the incidence of various forms of unfair practice, penalties and appeals. These reveal, in rank order, plagiarism, collusion and the introduction of unauthorised materials into examinations, respectively, to be the most frequent types of case. The data also indicate a higher incidence of cases brought against international students, which was a theme for two of the other presentations.

Sandy George also presented some new evidence from a pilot project run within English Language Training Services (ELTS) supporting the development of international learners’ language and academic skills (including referencing) through provision of audio feedback. Thirty students took part in the trial, with audio feedback made part of a student-driven feedback loop. Evaluation of the pilot was extremely positive, with strong learner support for the approach and evidence of greater increases in average writing scores compared other classes.

Finally, Julia Fallon presented evidence from her work, with Neil Wellman, on unfair practice among Business students at Cardiff Metropolitan University (UWIC), providing some early results from the current stage of their project. Focusing on Indian students, their preliminary results suggest cultural factors are crucial to
understanding student approaches to assessment, and highlight a preference for group work, ambivalence to good practice and an expectation that better students will help and support their weaker colleagues.

**Outcomes of seminar**

The implications below apply for all staff involved in supporting learners (e.g. academics, administrative and support staff), as well as senior managers:

- It is crucial in the prevention of unfair practice to understand the reasons why some students engage in such behaviour; evidence suggests it may be the consequence of a range of factors including poor practice, extrinsic performance and other pressures, as well as sociocultural issues. Evidence presented in the seminar suggested the last was especially pertinent for international students, arising from their prior educational experiences and traditions.

- There was a broad recognition of the need for a holistic, multifaceted strategy to addressing the issue of unfair practice, which would continue to include appropriate penalties, alongside the development of forms of assessment minimising opportunities for unfair practice, and training and support for learners. Such practices might include the ‘one day exam’ (open book, time constrained); conventional exams; problem questions (format making it difficult to engage in plagiarism); recycling of questions over a minimum five-year period; and use of very recent news/cases/articles as lead in for essays.

- Equipping students with the necessary skills is crucial to this endeavour, and a range of supporting practices were described, including basic skills development, opportunities for formative assessment using plagiarism detection software, assistance in referencing from library staff, etc. It was emphasised that it was helpful for students for there to be consistency of referencing style within academic units. The student representative felt that supporting freshers and international students was especially important, and also that thought needed to be given to how academic integrity was communicated, and raised the question of whether, notwithstanding the considerable effort devoted to such matters, the message was reaching the audience.

- Detecting unfair practice using electronic software is useful, especially in an era of increasing student numbers, but there is a need for staff training on its use, and for them to be aware of the strengths and limitations of such tools, including the need for interpretation. A useful addition to detection is the use of ‘profiling’ – i.e. looking for marks that appear out of line with previous performance.

- Staff development more generally in relation to developing meaningful forms of assessment that reduced the potential for unfair practice was considered useful.

*For the above and policymakers:* Delegates were clear that consistency was also required in relation to the handling of allegations of unfair practice, including penalties, both within and among institutions. The role of the OIA in relation to this issue was also noted.

**Emerging themes**

A number of interconnected themes emerged from the event, of which perhaps the three most important are the following:

- There is evidence of a changing ethos within HE, with the approach shifting from unfair practice to promoting academic integrity. How staff and students can be best supported in that transition is a key issue.

- It was noted that the nature of unfair practice is evolving, with a growing concern around the use of essay writing services and, for international students, back-translation. Both are areas that would merit further research/investigation.

- The use of grade profiling for detection was an interesting point arising from the experiences of the School of Law in Swansea, and its use would appear to merit research, perhaps as part of a wider move to analytics.
The following are selected references. The presentation by Julia Fallon included an extensive number of additional references.


Plagiarism: realities and myths

Glyndŵr University (seminar) – Denise Oram

Introduction and overview

This was a one-day event with the aims to raise awareness and find possible solutions to the ongoing issues and challenges relating to plagiarism and to explore the latest thinking with regard to practice in the following areas: assessment strategies to minimise plagiarism possibilities; supporting students’ academic skills development; improving and implementing policies for unacceptable academic practice; using text-matching tools effectively.

We do have local expertise from a number of different disciplines, which includes research that has been carried out in Business and Computing. In particular a two-year research study has been carried out in the Business School – ‘Using the plagiarism software Turnitin as a diagnostic tool to support students in their written assignment work’. This work has been particularly useful in supporting the increasing number of international students on higher education programmes.

Generation of evidence

The conference had a keynote session from Jude Carroll presenting ‘Realities and Myths’. This was followed by parallel sessions on ‘Reducing Plagiarism’: one involved discussing findings from research on assessment ideas and practices to minimise plagiarism; the other session reported on research findings from using the tool Turnitin in the study outlined above. There was also a workshop ‘Leaving no stone unturned’, working on issues and solutions, run by Erica Morris. This was followed by a further keynote session by Jude Carroll, ‘Do your own work: why international students might find this instruction tricky and what to do about it when they do not’. This was followed by an interactive session for all participants in groups.

Outcomes of seminar

The following themes have emerged from the seminar:

• using technology as a diagnostic tool;
• cultural differences;
• importance of assessment;
• improving students’ referencing skills;
• contract cheating;
• why students plagiarise;
• policies, standards and procedures relevant to plagiarism.

Links

HEA Academic Integrity Service: 
http://www.heacademy.ac.uk/ourwork/teachingandlearning/assessment/integrityservice

Plagiarism Advice: http://www.plagiarismadvice.org/

Bibliography

Promoting academic integrity: a rehabilitative approach to give students who have committed unfair practice the skills to avoid further instances

Swansea University (Learning and Teaching Enhancement Fund Project) – Jane Thomas

Keywords: academic integrity; unfair practice; online resource.

Introduction and overview

Institutionally we had identified a need to reorient our unfair practice processes from being predominantly punitive to a more proactive, educative approach. Looking at the range of technology-based materials to promote academic integrity across the UK, it became clear that many have built excellent resources and these are already accessible to all. Many lecturers, dependent on discipline, direct students to specific websites for help. However, the available evidence and examples of good practice did not address our need for a simple, informative tool for use with students who have committed unfair practice. That led us to seek support to create an ‘easy to use’ resource, standardised for use across all disciplines.

The project sought to reorient the institutional approach to ‘unfair practice’ towards the promotion of ‘academic integrity’. Remedial work to prevent continuing unfair practice by students who have already done so has rested with individual schools/departments to date. The project developed an electronic resource to be used by all students passing through the institutional processes in an effort to enable them to improve their academic practice and maintain academic integrity. The product was designed to be accessible to all students, irrespective of their area or level of study.

The funded development of the resource, the product of the project, will enable a pilot study to be conducted (to facilitate ongoing improvements) and an evaluation (with a view to future use). If the pilot is successful and the evaluation positive, the institution will consider the roll-out of the final resource for use with all students. If that follows, it is expected that completion will be linked to progression, ensuring enhanced academic integrity across the student body.

Generation of evidence

The working group for the project was made up of key contributors to the institutional unfair practice processes, across the subject/service range within the University. We undertook a simple process evaluation, which identified:

- a need to educate students more fully on key elements of unfair practice;
- problems with the language and complexity of existing resources;
- the need to take a more positive educational approach;
- international students as particularly vulnerable on unfair practice issues.

Having developed the resource, the plan is to implement it with all students found to have committed unfair practice within the 2011-12 session. During that period, users will be asked to complete a short evaluative questionnaire.

Outcomes and impact of project

The short timescale precluded concurrent research. However, a continuous evaluation is in place for the 2011-12 session to evaluate student opinion. The short questionnaire will enable us not only to evaluate the process and outcome, but also to make improvements if identified. The evaluation will also contribute to the institutional decision-making on whether to extend use of the package across the student body and how to do so.
Again, the impact is prospective with the evidence ‘in progress’ rather than collected and available for collation. That said, the impact of the project can already be felt in relation to the raised institutional profile of academic integrity, the engagement of the working group and their commitment to continued enhancement, and informal feedback from the Students’ Union and wider student body supporting the project.

Links

The Unfair Practice team explored a range of online examples of tools of this kind including:
https://connect.le.ac.uk/p84446858
http://skills.library.leeds.ac.uk/avoiding_plagiarism.php
https://ilrb.cf.ac.uk/plagiarism/tutorial/whatisl.html
Doing things better and doing better things in assessment and feedback

University of Glamorgan (seminar) – Alice Lau and Dr Karen Fitzgibbon

Introduction and overview

The importance of dialogue with students is one of the current debates in assessment and feedback. The Change Academy project carried out focus groups, set up Facebook pages and also hosted a student panel to engage students in changes in assessment practice. These activities helped bridge the gap between student and staff perceptions of assessment.

To borrow the phrase from Professor Lewis Elton that enhancement is about doing things better but also doing better things, we believe that the combination of both is key to getting ‘more for less’ in assessment and feedback. The aim of the seminar was to share important findings from a successful Change Academy project involving both doing things better and doing better things in assessment and feedback. The objectives of the seminar were to: (1) encourage participants to consider how they can get ‘more for less’ by doing things better and doing better things via an interactive approach; (2) encourage participants to discuss the relevance of the findings from the research project to their own area of work.

Generation of evidence

The Change Academy project aimed to bring together academic staff and students in an open and honest review of assessment practices at Glamorgan. This was facilitated through the collection of student view of assessment through focus groups, an online survey and the use of Facebook. Academic staff were invited to bid for funding to critically review current assessment practices. They were invited to suggest innovative methods to improve the student experience by putting assessment at the heart of learning. An essential component of the success of the Change Academy project was the collaboration between the project team and the University Students’ Union sabbatical officer for Education.

Following on from the success of Change Academy 1 (2008-09) in two faculties (Humanities and Social Sciences, and the School of Creative and Cultural Industries), the project was extended into the remaining three faculties – Faculty of Advanced Technology (AT), Glamorgan Business School (GBS) and Faculty of Health, Sport and Science (HeSaS) – and the Royal Welsh College of Music and Drama (RWCMD). The aim of extending the Change Academy project was to further embed the culture of putting assessment at the heart of learning. In total more than 48 staff were involved in reviewing and changing assessment and the feedback process of 72 modules across the University. These changes were captured as case studies where staff provided as a final report as part of their criteria to obtain the funding.

Seminar findings

The seminar itself provided the vehicle for participants to engage in an action learning set with students to hear first-hand experiences of the good and the bad in assessment in higher education. A student panel in the seminar challenged participants’ current assumptions and practice in assessment and feedback across six substantive themes: experience of writing for assessment; bunching of assessment; assessment criteria; submission processes; feedback; and anonymous marking. When the student voice was heard in the Change Academy project it led directly to improvements in the assessment experience. One example is the use of assessment diaries to address the issue of assessment bunching. The diaries provide students with an overview of the assessment deadlines and feedback dates for their course. They help avoid assessment bunching, and in one department, the introduction of the diary resulted in a significant improvement in the NSS scores for the questions on promptness and clarity of feedback. The diary is a clear example of small steps resulting in big changes. Given the importance of the NSS scores, the process and examples of the diaries used across the institution will be shared with the participants.
Outcomes of seminar

Rather than only presenting the innovative assessment methods used, or presenting ‘thoughts’ from students as quotes, participants were provided with a rare opportunity to openly debate assessment with current undergraduate students from a range of subject disciplines. The ensuing debate was lively and well-tempered and became the focal point of the discussion throughout the seminar. The level of discussion and debate generated was seen by participants as a particularly valuable element of the seminar. Key aspects of the discussion are listed below.

- The discussions led to the opportunity to share examples from the project – which included the use of digital storyboards, story sacks and audio and video feedback – to enable participants to visualise their abstract ideas and how these could be implemented in practice.
- It was particularly noted that several colleagues were planning change their assessment approach as a direct result of the seminar. For example:
  - the majority of participants planned to engage their own students in assessment panels;
  - one colleague said he will engage in “a full and frank discussion with my students about what they really think of the assessment tasks I set”;
  - another participant stated that his forthcoming seminar would be completely replanned to take account of the dynamic structure offered in the ‘doing things better and doing better things’ seminar;
  - one delegate sought advice about potential funding for a similar project in her own institution;
  - several colleagues mentioned the ‘making feedback work for you’ leaflet and plan to produce a similar resource for their own students.
- The student representatives plan to report the outcomes of the seminar to the wider student body. The student representatives will feedback to various Faculty committees at which they represent the student voice.

Emerging themes

Themes emerging from the seminar included:

- anonymous marking – particularly with the advent of Turnitin;
- student involvement in assessment and feedback – engaging in an open and honest dialogue;
- the use of technology to enhance the assessment and feedback experience, not using technology for its own sake;
- engaging staff that are resistant to changes in assessment practice.

Bibliography


A scoping exercise investigating the efficacy and efficiency of audio feedback

Cardiff University (Learning and Teaching Enhancement Fund Project) – Sue Annetts and Geraldine Hastings

Keywords: audio feedback; efficacy; efficiency; inclusive curriculum; feedback.

Introduction and overview

The need for this project has arisen as a result of increasing awareness of the diversity of undergraduate Physiotherapy students’ learning styles and needs. Undergraduate Physiotherapy students determine their learning styles at the beginning of the programme by self-evaluation questionnaires, e.g. VARK (Flemming and Bonwell, 2006), yet normal departmental practice offers only written feedback on assignments. However, informal consultation with undergraduate Physiotherapy students suggests that other options may need to be considered. There has been a recent impetus to improve feedback to students (Cardiff University, 2011), giving rise to an interest in the potential wider use of audio feedback. However, a paucity of literature revealed a need to investigate both the efficacy and efficiency of audio feedback in relation to learning styles. Therefore the research questions are:

- To what extent do students feel that the two types of feedback match the principles of good feedback as defined by Nicol and MacFarlane-Dick (2006)?
- Do the students perceive there is a difference between the two types of feedback?
- What are the views of students on the value of audio feedback compared with written feedback, including whether they feel that this relates to their learning style?
- What is the efficiency of audio feedback from a staff perspective?

Project findings

The findings suggested that participants rated audio feedback slightly higher than written feedback, in relation to both the qualitative and quantitative findings. The implication is that audio feedback should be considered for availability within this undergraduate programme.

All participants seemed to appreciate the audio feedback in addition to the written feedback. In some cases there was a direct relationship between the participants’ learning preference and the type of feedback.

Jamie, one of two participants with an identified auditory learning preference, preferred the audio feedback to the written:

I definitely much preferred the auditory feedback as I found it difficult to concentrate on the written feedback.

Rosie, a multi-modal learner with an auditory component to her learning style, said:

I found the audio more helpful than I thought I would.

She seemed to value having both types of feedback:

I think because I learn in lots of different ways it is good to have the mix.

John, the only visual learner, found the audio feedback helpful but only in addition to the written feedback:

I am visual but I’m not sure … I need the written feedback as well.
However, the most compelling and unexpected findings came from some of the participants who did not have an auditory learning style. Nigel, a kinaesthetic learner, indicated interestingly that he took advice on board more quickly when listening to the audio file:

*When I hear it, it sticks whereas when I read it, it doesn’t stick in my head so much.*

He concluded:

*… listening is better than reading.*

Ibrahim, another kinaesthetic learner, spoke of getting bored with the written feedback:

*I found with the written ones, the information in the margin, I got bored and didn’t take them all in as after a while it seemed quite a lot. Whereas with the audio file I was actually listening and taking it into account more.*

Emma, a kinaesthetic and read/write learner, also seemed to concentrate more with audio feedback:

*I would say I paid a little bit more attention to the feedback because you are being told it rather than reading it. You pick more up when listening to it.*

Audio feedback, the fact that it was someone’s voice, also seemed to reinforce the personalised approach; as Rosie commented:

*I think it was more personalized because they were talking to you.*

Overall, the participants seemed to get information that would enhance their future performance from receiving both types of feedback.

**Marking assignments**

Routine single marking took 15 minutes longer per assignment for the audio feedback: it took one hour and 15 minutes for audio compared with an hour for written. The impact was greater in the instances of modifying marks/feedback after moderation or double marking. This then took 25 minutes longer in total for the audio feedback: one hour and 35 minutes for audio feedback compared with one hour and 10 minutes for written feedback. The equipment was straightforward to use, although a lack of resources in relation to the software only being available on one laptop and needing a quiet room to record the audio feedback were restrictions. The software could have been more user-friendly if the recording could have been made as an MP3 file in the first instance or if editing in Camtasia Studio was more time efficient.

**Outcomes and impact of project**

The researcher conducting the marking felt that her written feedback took 25% longer than it had for this assignment in previous years, but was of a higher quality as she was aware of the recent Cardiff University feedback policy and the principles of good feedback that had informed it. Unfortunately, it was not possible to have a blinded researcher. However, this suggests a seminar on marking principles for all markers may be an initial step to enhance feedback.

Therefore, overall recommendations as a result of the findings are:

- run a seminar on the principles of good feedback (NUS, 2010) for staff to further heighten their awareness and understanding of these principles;
- demonstrate the procedure for audio feedback to the next cohort of students, who have a component of auditory preference, and explore how many would be interested in receiving audio feedback as described in the above section.
A further recommendation is to implement audio feedback for the next assignment (for those who requested it) and then evaluate it using a questionnaire based on the NUS principles of good feedback (NUS, 2010); this relates to the comments from the participants about a lack of clarity in the current questionnaire. Evaluation would also be by focus groups, relating to learning styles as in the current study.

The impact of this study to date has been restricted to the students who participated and seemed to find it beneficial. It has also had an impact on the two researchers in that their reflections on the findings have led to the above recommendations. The implementation of these recommendations, if accepted, would have an impact initially at programme level, but would be anticipated to be transferable within the School of Healthcare Studies, and the wider University. Through dissemination via the HEA Evidence Net and medical education conferences they would be expected to have a wider effect. However, it is acknowledged that further research needs to be carried out regarding evaluating the above recommendations. A larger study would be expected to have greater impact, depending on the findings.

Bibliography


B. Departmental

Feeding back to feed forward: formative assessment as a platform for more effective learning

Cardiff Metropolitan University (UWIC) (Learning and Teaching Enhancement Fund Project) – Dr Lucy Wheatley, Rhiannon Lord, Alex McInch, Amy Swatton and Professor Scott Fleming

Keywords: assessment; feedback; learning.

Introduction and overview

Nichol (1997) and Biggs (2003) suggest that teaching is simply a catalyst for learning and ‘meaning’ is constructed by the student through relevant learning activities. However, the construction of such ‘meaning’ is largely determined by the type, amount and timing of feedback, which is crucial to the development of effective learning (Rushton, 2005; Carless, 2006). This research project focused on assessment and feedback, exploring the modes of assessment across a range of modules and degree pathways within the Cardiff School of Sport (CSS), Cardiff Metropolitan University (UWIC). Specifically, there was an emphasis on the ways in which formative assessment and feedback are integrated into modules coupled with an exploration of the effectiveness of feedback on future learning. It is believed that in order to emphasise continuous learning (feeding back to feed forward) (Shepard, 2000; Garrison and Anderson, 2003; Rushton, 2005) and encourage self-regulated learning (Nicol and Macfarlane-Dick, 2006), it is important to provide opportunities for students to make mistakes and learn from them prior to the submission of a summative piece of work. The paradigm shift in higher education has seen the emergence of formative assessment and feedback as a key feature in the student experience in order to develop deep, lifelong learning (Nicol and Macfarlane-Dick, 2006).

However, questions remain about the effectiveness and implementation of this form of assessment and feedback. As a starting point for further exploration, researchers suggest that the following questions should be considered: “What do students think about particular evaluation methods? How do they experience certain assessment modes? What methods do they favour and why?” (Stuyven et al., 2005, p. 329). “How do students perceive the feedback process? To what extent are students’ perceptions different from tutors? What are the implications for enhancing the feedback process?” (Carless, 2006, p. 221). Subsequently, this study considered both the extent to which formative assessment and feedback occurs within the CSS and the perceptions of both staff and students regarding the concept of feedback (types, timing and amount of feedback) and its effectiveness (impact on learning) in relation to formative and summative assessment.

Generation of evidence

The research team included one undergraduate and one postgraduate student from the CSS. They took a full role in planning the detailed arrangements of the research design, and were also involved in data collection, interpretation and analysis. Data were captured from two groups of participants: (i) those who facilitate student learning (lecturers); and (ii) the learners themselves (students). Four focus groups were undertaken in total, three of these with undergraduate students in Level 4 (n=3), Level 5 (n=3) and Level 6 (n=4), and one with Masters-level students (n=4). Module leaders of the modules identified in these student focus groups were subsequently invited to a further focus group (n=3). All student focus groups were facilitated by the two members of the research team following a period of training as it was thought that students would feel more comfortable discussing their opinions on the delivery of modules with their peers rather than a member of staff. The staff focus groups were facilitated by lead researcher.
Project findings

Students appear to only consider feedback in relation to summative assessment. When asked about the types of feedback they received during the course of the year, students referred only to written feedback from assignments together with the opportunity to discuss this feedback with a member of staff if they required further clarity. This is not to say that students are not receiving formative feedback throughout the year but, importantly, they do not appear to recognise formative feedback. Indeed, there was limited clarity with respect to students’ understanding of the terms ‘summative’ and ‘formative’ (other than at Masters level), which would certainly go some way to explain the lack of recognition. However, students did agree that they would welcome more frequent opportunities for feedback that allowed them to monitor their progress and enabled them to identify areas for development. This suggests that even if they are unfamiliar with the terminology, they do not currently receive formative feedback at a frequency that enables and encourages continual development and learning. This point was reinforced by staff, who despite stating that they do provide students with opportunities for formative assessment and feedback, noted these practices could be significantly improved upon. One staff member discussed how “a lot of assessments are at the end of the year” and as “ongoing assessment could help to identify what the students need to work on” we need to consider the methods of assessment that we adopt if we really want to make an impact on learning.

If formative assessment and feedback practices are considered by academics to play a key role in the development of a deep approach to learning, it is essential that students are provided with greater opportunities for formative assessment and feedback, as both staff and students appear to be aware of its value in relation to enhancing learning and potentially performance at summative assessment. Indeed, there was recognition by students that in those modules where feedback was more apparent, students felt that this contributed to their overall module grade as they were able to pinpoint more easily what they needed to do in order to improve. Moreover, individualised formative feedback is important as there is a perceived need to try and distinguish between and cater for the vast range of abilities within any given class. Thus, it is important that individual students are aware of their own performance and what they need to do to improve.

Students highlighted what they considered to be examples of good practice (modules). On the whole, students agreed that the most effective and enjoyable environments were those with small numbers of students (for example, seminars and workshops). Again, these environments were also the preference of staff members. These environments are considered advantageous for a number of reasons: they are more informal; it is easier to receive a greater amount of feedback (and feedback is more explicit); there is a greater sense of student responsibility (students are a recognisable face with a name so they cannot hide among the crowd); it is easier to develop stronger staff-student relationships and also strong peer relationships and therefore students feel more confident to speak up and ask/answer questions. Nevertheless, that is not to say that large group lead lectures cannot facilitate learning and students highlighted one example and discussed how the staff-student relationship determined the effort and engagement of students outside of their favoured learning environment (seminars).

When discussing the teaching style of one lecturer the students described how “she wants you to get involved with it [the lecture material], so she has a way of asking questions or making you think about things. Other lecturers just tell you and aren’t actually interacting with you whereas she does.” Furthermore, one staff member highlighted the positive student feedback they had received in relation to the use of team teaching in lead lectures, whereby three or four members of staff are present in a lecture to improve the staff-student ratio and to create a similar environment to that of a seminar. Thus, it seems that student-centred learning can apply to a numerous modes of delivery, over and above small group seminars and workshops, and perhaps we should consider not just the differing modes of delivery but also ways in which we can engage students in the more traditional learning environments, as making small adaptations to how we deliver lectures (in large groups) could still help to develop a deep approach to learning.

While there is an onus on staff to create an environment that is more likely to facilitate deep learning, there is also a need for students to recognise their role in this process. Students appear to have high expectations of
staff, but these expectations do not always match the expectations that they have of themselves, nor do students overtly recognise the need to become independent learners (from the day they arrive), although there was some recognition by the Masters students that learning was in fact a two-way process. One student highlighted that the feedback provided (on return of an assignment) had been excellent, but that in order to gain from this feedback it was the student’s responsibility to take the time to digest it and revisit the original piece of work (and perhaps talk this through with a member of staff) in order to ensure continual improvement. Given some of the recent attempts within HE to adapt modes of delivery (and it could be argued that we are doing so to satisfy the needs of what have become in effect our ‘customers’), this begs the question as to whether we are enabling students to become independent learners or whether we are simply reinforcing the high level of dependency that appears to be created through the current school and further education system.

Perhaps we need to raise our own expectations of students, especially in relation to the first year of study and present our students with a greater challenge when they first arrive at university. Indeed, if we consider the generic marking criteria (which distinguishes what we expect of our students at each level of their study), students are simply expected to demonstrate their ability to ‘describe’ and ‘identify’ at Level 4 (first year of undergraduate study). Indeed, it is not until Level 6 that we expect students to demonstrate their critical evaluation skills. This raises a couple of key concerns. Firstly, if we inform our students that in order to get a good mark at Level 4 they are simply required to present information and in no way demonstrate that they have understood the information (especially when students are introduced to the concept of critical evaluation at school, which suggests that they take a step back when they arrive at university), we are merely reinforcing a culture of rote learning. If this is the case, we cannot expect our students to become deep learners. Secondly, if we do not encourage our students to be critical in their thinking and writing from the moment that they arrive at university (and provide them with the skills to do so), we cannot expect that they will automatically become critical thinkers by the time they reach their final year at university. There is a real need to consider and manage these expectations and the skill development of students if the desired outcome is to create a culture of deep learning.

**Outcomes and impact of project**

From this study it is possible to identify a number of implications for policy and practice for academics in particular. Firstly, there is a need to accept the changing nature of HE and be accepting of the need to consider and change teaching methods and assessment and feedback practices accordingly. In particular, universities should consider the extent to which they offer students frequent opportunities for formative assessment and feedback given that these are considered key ingredients in the development of a deep approach to learning. Universities (and departments within them) should devise a strategy detailing the current learning and teaching practices, the need for change and the ways in which they intend to enforce change and evaluate its impact. It is important that we consider both the student voice along with current research findings in relation to the development of deep approaches to learning.

There is also scope to perhaps revisit the nature of the first year of undergraduate study and consider ways in which we are able to enhance the learning environment and reinforce the importance of the first year as the foundation from which success should breed. However, this requires a complete change of culture, something that is not easy to enforce, although reconsideration of what we expect our students to be able to demonstrate (levels of knowledge and understanding) at each level of undergraduate (and postgraduate) studies may perhaps help to facilitate such a change. HE institutions need to carefully consider the ways in which they help students to develop the skills they need (i.e. critical evaluation skills) to fulfil their potential while recognising individual differences in relation to ability.

The findings of this project have highlighted the need for the School of Sport (and Cardiff Metropolitan University (UWIC)) to reconsider its assessment and feedback practices across all levels of undergraduate and postgraduate provision and to try and change the culture of learning, especially during the first year of
undergraduate study. The impact of the project will be noticeable in time, once strategies have been
developed to enforce such change, but it is hoped that other HE institutions will be able to draw on the
findings to consider their own practices in an attempt to enhance learning.
This study focused on process (assessment and feedback strategies) rather than measurable outcomes (such
as academic achievement) and in so doing it provides an important platform for a longitudinal study seeking to
explore the relation between the two. Ultimately, this will contribute to a greater awareness and
understanding of formative assessment and feedback practices and their relationship with learning, which will
be of benefit to both the CSS and the higher education sector and may facilitate a positive change in the
approach to teaching.

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Engaging students in group work to maximise knowledge sharing

Bangor University (Learning and Teaching Enhancement Fund Project) – Professor Sally Sambrook, Bejan Analoui and Dr Clair Doloriert

Keywords: knowledge sharing; cognitive-based trust; affect-based trust; group allocation.

Introduction and overview

The purpose of the project was to gain an understanding of how students’ interpersonal trust relationships impact on their willingness to share knowledge during group work with a view to increasing student engagement in this learning activity. Our overall research question was: is there one best method of allocating students to groups when the purpose is to maximise knowledge sharing? To answer this, the main objectives of the research were to:
• gain an understanding of students’ experiences and perceptions of group work in Bangor Business School as a vehicle for sharing knowledge;
• determine to what extent students believe their interpersonal trust relationships with their group-mates impacts upon their willingness to share knowledge during group work;
• understand students’ preferences for group allocation to inform curriculum design and delivery.

Generation of evidence

Participants

We contacted all students within Bangor Business School by email in May 2011 inviting participation, and offering a small incentive of ten pounds. Once we had all participants’ details, we arranged focus groups by year. We recruited 32 undergraduate and postgraduate students who had taken part in group work projects. The demographic characteristics of the participants were diverse including both male and female students, of varying ages, from Britain, Europe, India, China and other overseas countries.

Procedure

To understand and explore students’ perceptions and experiences of group work we conducted six focus groups and one semi-structured interview with students from each year group during June 2011. Each focus group was facilitated by two researchers, one of whom (Bejan Analoui) led the discussion while the other made observations of students’ behaviours. The discussion was semi-structured, with questions being asked that addressed each of the research objectives.

The following key questions were asked in each focus group:
• Have you had any positive experiences during group work?
• Have you had any negative experiences during group work?
• Have you found group work to be a good way to share your skills with others?
• Have you found group work to be a good way to share your beliefs, ideas and opinions with others?
• Is it easier to share your skills, beliefs, ideas and opinions with group members you are close to or who are friends, or who are competent, reliable and good at the work?
• Which of the following allocation methods do you prefer: self-selection, random and engineered? (Explanations of each were given.)
• How can we improve group work?

Analysis

All sessions were recorded and transcribed. The transcripts were coded both by hand and using NVivo version 7. The transcripts were read by all three researchers, and each of the emerging themes was discussed and agreed. Thematic analysis of the data enabled comparison of viewpoints within and across groups.
Project findings

An overall and important finding is the substantial and common emotional reaction – general amusement (often accompanied by silence) – to the question of positive experiences of group work. However, most participants did share positive experiences of group work, and five broad themes emerged: i) that they were able to share their skills and ideas with others; ii) divide their work; iii) get to know their colleagues; iv) learn to work well with others; and v) become acquainted with different cultures. These themes also recurred during the ensuing discussions surrounding their preference for whom they would work with and methods of group allocation.

The length and emotional content of the discussions of negative experiences outweighed those of positive experiences and issues reported included: the free-rider problem; group leading and decision-making; and cultural backgrounds.

In relation to knowledge sharing, three common themes emerged: i) participants across all year groups had limited experience of sharing skills; ii) they were more frequently engaged in sharing their beliefs, values and ideas and this was seen as a positive aspect of group work; iii) while interpersonal relationships were seen to impact upon the degree to which knowledge sharing took place, the major contributing factor to this phenomenon was participants’ motivations and desired outcomes for their work rather than their interpersonal relationships.

The discussions of different group allocation methods revealed that participants’ preferences for group allocation depended on three broad considerations: i) their desired outcomes of group work; ii) the point in time at which group work was undertaken; and iii) the various problems and issues associated with group working detailed throughout the report.

The majority agreed that being placed in a random or engineered group allowed them to meet new people, but also contained an element of chance, or luck that meant their performance in assessments might be to a large extent outside of their control. Those who focused on attainment described a preference for self-selection, as did those who were concerned about the potential negative impact of working with those they did not know.

Participants who described wanting to learn from the experience of group work most often opted for the random allocation method.

Outcomes and impact of project

Based on the findings of this research, we conclude that the most equitable way to proceed with group work is to allow students to choose the allocation method that they feel is most appropriate to their needs. This returns a degree of ownership to students, and provides the best possible opportunity for students to work with like-minded colleagues to pursue their own aims and fulfil their individual needs from their group work experiences.

For academics: the findings inform lecturers considering using group work on issues of group design/allocation, and highlight the need for a wider consideration of assessment strategy. Although the study was conducted in a business school, we suggest the findings can be transferred to any generic context, wherever group work is employed in the undergraduate or postgraduate curriculum.

For students: this provided an opportunity to contribute to and learn from the study, and enabled them to recognise positive and negative aspects of their experiences to enhance their knowledge-sharing skills in future group-work activities. The study has also exposed them to research, which enhances research-informed teaching and learning.
For employers: there are also opportunities to transfer this knowledge to the work context in situations where there are options for group allocation and an element of group performance appraisal. It also helps managers understand students’ negative experiences of academic group work and potential negative attitudes towards this in the workplace.

For professional bodies: the findings are also relevant to organisational trainers and HRD practitioners, and thus can contribute to policy and practice within the Chartered Institute for Personnel and Development.

A key implication of the study is developing ways of supporting cognitive-based trust to enhance knowledge sharing. However, we did not examine the relationship between knowledge sharing and performance, so this is an area for further research.

The researchers will incorporate the findings into their own practice in the next academic year and assess students’ experiences of group work. Also, having disseminated the findings within the University, through agreement with the Academic Development Unit, we will encourage to our colleagues to do the same and attempt to capture this during further focus group research. In addition, we will seek to capture the impact in our partner PGCertHE universities (Aberystwyth, Swansea, Trinity St David and Cardiff Metropolitan University (UWIC)) through telephone interviews. Therefore, this initial project may inform practice and lead to underpinning a wider study across Wales. We will also disseminate our findings through academic conference presentations, such as the HEA, and publications including the BMAF journal, International Journal of Management Education.

**Bibliography**


2. Student engagement in curriculum design and delivery

A. Institution-wide

Encouraging student partnership in curriculum delivery and design by using freeware technology to facilitate collaborative learning

Cardiff University (Learning and Teaching Enhancement Fund Project) – S.M. Rutherford and J.L. Scott

Keywords: collaborative learning; partnership; peer teaching; social constructivism; digital literacy.

Introduction and overview

The adoption of modular systems and the increase in student numbers seen over the last decade has the potential to lead to a decline in the extent of discussion and collaboration between students in science subjects in higher education. The goal of this project was therefore to enhance student collaboration and discussion and encourage student ownership of the curriculum. In this way, students can be partners in the learning and teaching process, undertaking work that not only supports their learning, but can also feed back into the way subjects are taught and the design of curricula. Thus delivery methods will become more student-centred and will promote deep learning strategies in the students themselves.

We have been piloting the concept of the ‘Shadow Module’, a student-led parallel to the academic-led module. In this format, the Shadow Module Leader is a student responsible for organising student-led workshops utilising collaborative learning to design study resources. These collaboratively produced resources are then made available for current and future student cohorts, and could potentially also be shared externally. Students also identify and curate other free learning resources available on the internet. These collaborative sessions are supported by the use of interactive and collaborative IT tools of various kinds, to support a process of computer-supported collaborative learning (CSCL; So and Brush, 2008). The approaches undertaken in this study follow our aim to work towards a model of social constructivism in higher education, following Mercer’s revision of Vygotsky’s ZPD as the ‘Intermental Development Zone’ (IDZ; Mercer, 2000). According to Mercer’s model, discourse that occurs between individuals while jointly solving a problem is vital in providing a structure for supporting all participants’ learning (the IDZ). Working collaboratively towards the IDZ allows all participants to operate just beyond their perceived capabilities.

In addition to the importance of student engagement, there is also a sector-wide drive for developing innovative pedagogy and policy that supports and facilitates the improvement of both student and staff adoption of web 2.0 collaborative technologies, which is a large part of the ‘digital literacy’ agenda. Shadow Modules are an attempt to immerse the use of technology in an effective pedagogy and reflective learning and teaching environment, in an effort to develop and sustain a critical community of learners (Garrison and Anderson, 2003). CSCL may also help to promote peer interaction, and can facilitate the sharing of knowledge among a group of learners (Lipponen, 2002), and Shadow Module participants are using CSCL to help facilitate collaboration, which occurs in both online and physical environments.

Generation of evidence

The evidence generated for this project was both quantitative and qualitative, although both were limited by the small number of students taking part in the study. All participants in Shadow Module activities were surveyed regarding experiences of the sessions.

In order to analyse the impact, if any, upon student module outcomes the module grades of the students who participated in Shadow Module sessions for that module were analysed and compared to the mean of students...
who did not participate in Shadow Module activity. The students who did engage with the Shadow Modules were further divided into those who attended Shadow Module sessions regularly, and those who only attended two or fewer sessions. The grades of these students were normalised against other markers of their performance, namely their overall degree mark, and their Year 2 and final-year mark.

Project findings

Summary of process and initial observations
Types of activity encountered in Shadow Module sessions were the following:

- warm-up exercises (brainstorms, topic review and discussion, spot tests);
- group reading and write-up (from papers, books and lecture notes);
- topic discussion;
- creating shared notes;
- essay planning and marking;
- revision and learning exercises, producing study aids for self and peers.

Technology was used to facilitate these activities. For example, data projectors were used by students to overlay images on a whiteboard, which could then be annotated. This was particularly useful for designing quick spot tests for colleagues, or collaboratively adding to existing diagrams, as well as to review previous work or resources of interest. Photographs of the end result could then be captured from digital cameras and then easily imported into Google Docs. A number of activities, however, used no technology whatsoever, but rather relied on using whiteboards, A3 paper, markers and post-it notes. The importance of using these non-IT-based approaches should not be overlooked. The role of technology is, however, important in sustaining and improving these resources, and allowing outputs to be disseminated and reused at a later date. We used several ICT platforms to facilitate the student collaboration, each of which had its own benefits and limitations.

One severe limitation to the Shadow Module approach, however, was the limitation of the online space itself. The main collaborative tool used was Google Docs, which had its own limitations (discussed below). Moreover, the major limitation to the approach was the constraint of being required, by necessity, to run much of the process through the University’s VLE. The inflexibility of a monolithic system such as an institution’s VLE emphasised the need for a more robust, interactive and usable community virtual space.

Student response to Shadow Module activities
The online survey showed a clear indication that the students involved found the Shadow Module approach to be a valuable exercise. A number of areas were cited as being of benefit: impact on studying (alone or with peers); impact on working with others; interest in the module subject; and collaborative and communicative skills. 80% of students surveyed believed that the SM sessions had a positive impact upon their study time. Table 1 summarises the responses of participants regarding the impact of Shadow Module activities.

Table 1: Participants’ responses on the impact of Shadow Module activities

<table>
<thead>
<tr>
<th>Question</th>
<th>Median</th>
<th>Mean</th>
<th>StDev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supported revising with others</td>
<td>5</td>
<td>5.2</td>
<td>0.9</td>
</tr>
<tr>
<td>Supported revising on my own</td>
<td>5</td>
<td>4.7</td>
<td>1.0</td>
</tr>
<tr>
<td>Supported preparation for examinations</td>
<td>6</td>
<td>5.5</td>
<td>0.9</td>
</tr>
<tr>
<td>Enhanced motivation and interest for the module</td>
<td>5</td>
<td>5.1</td>
<td>1.1</td>
</tr>
<tr>
<td>Enhanced confidence in working with others</td>
<td>5</td>
<td>4.9</td>
<td>0.9</td>
</tr>
<tr>
<td>Allowed for advice, support and feedback from peers</td>
<td>5</td>
<td>5</td>
<td>0.7</td>
</tr>
</tbody>
</table>

(Responses were graded from 1 (strongly disagree) to 6 (strongly agree).)
The ultimate goal of the Shadow Module approach is to increase the involvement of the students in the subject, and encourage student ownership of the module and the syllabus, which was very encouraging. Indeed a number of free-text comments supported this. Moreover, the collaborative experience itself was noted by many as being both welcome and useful. When surveyed as to whether the Shadow Modules allowed for ‘advice, support and feedback from peers’, the response was also high. This above all others is the principal aim of the Shadow Modules, to enhance collaboration between students in an academic climate.

When asked ‘What did you find most useful?’, student free-text comments fell into these major categories:
- collaboration: discussion to explore the subject;
- collaboration: discussion for module/exam support;
- collaboration: producing new resources;
- curation of online or printed resources;
- exam preparation.

For ‘What did you find most problematic?’, common categories were:
- time constraints;
- inertia of discussion, particularly where subject knowledge among peers was weak;
- lack of background knowledge;
- confidence working in groups;
- subject-specific problems;
- what to do/how to do it.

For ‘What would you do to improve [Shadow Module] sessions?’, common categories were:
- improve scheduling;
- availability of technology (so students don’t have to bring in their laptops);
- increased lecturer involvement and structure of sessions;
- more resources;
- peer support;
- an improved VLE for mediating online collaboration.

It was worth noting, however, that a large number of students returned the response ‘nothing’ to this last question, suggesting that they found the sessions sufficiently useful and valuable already.

A number of observations were identified during the pilot study, which are worth commenting upon, although they are by no means quantitative:
- Students were readily willing to collaborate and upload notes to a shared space during the session, but were less likely to share their independent work afterwards.
- The level of autonomy/independence of the Shadow Module groups was variable.
- Shadow Module Leaders generally became more confident in running the sessions after three to four weeks, coming up with ideas for sessions, and showing more confidence.
- The engagement with technology during the sessions was high, with many activities involving students collaborating towards the ongoing development of online resources.
- Due to the nature of this use of CSCL, students were best involved in the sessions if they had free access to appropriate hardware, such as laptops. Students were more likely to turn up with their laptop after attending one or two sessions.

**Student engagement**

The level of student attendance at the Shadow Module collaborative sessions was variable, but generally low. In Module A (n=316) attendance ranged from ten to 45 students (mean attendance = 20), with only six students being classed as regular attendees. Module B (n=62) attendance peaked at 15 students (mean attendance = 7).
However, use of shared resources was considerably higher, with the total number of 1,105 hits by students on the shared document of Module A in the month between its production and the date of the module exam. For Module B, there were 231 hits on the shared document in a two-month period and 102 on the wiki (available for one month).

The majority of hits on the shared resources were, predictably, timed near to the date of the module examination. This suggests that although students did not necessarily actively participate in the collaborative activities themselves, they did find the resources produced to be a valuable tool for studying and revision.

Outcomes of project

Summary
The major outcome from this pilot study is the finding that students found the Shadow Module approach to be a useful and engaging one. The main benefit of Shadow Modules in the short term would therefore be to increase student engagement and encourage collaborative learning, which in turn should foster deep learning approaches to studying in general. However, the level of participation observed was generally low.

Pedagogic outcomes
The first pedagogic outcome is the finding that there is a limitation to the effectiveness of the Shadow Module due to the extent to which they are student-driven. There was a general feeling among students, as well as from observations by the study team, that the Shadow Modules would benefit from more structured sessions and more support for Shadow Module Leaders from the academic staff. The extent of involvement by the academic should be considered carefully, as it is important to strike a balance between structure and spontaneous student activity in order to facilitate the most effective environment for collaborative and investigative learning. Additionally, a number of simple improvements could be made to improve Shadow Module outcomes. The number of modules running the shadow module sessions should be increased so that students become more familiar with the format and the benefits endemic in the activities. There should be more shared spaces made available dedicated to casual shadow activity, which are large and dynamic enough for the varied learning and teaching modalities encountered in Shadow Module sessions. Changes in technology use could improve outcomes of the Shadow Module pedagogy.

Technological outcomes
There is a clear demand for a dedicated and socially centred online community space, which can act as the central hub for student activity in Shadow Modules. This space should be owned by the HEI and can act as the base of communication between students, as well as for feedback from academics and peers. Currently the only versatile and usable spaces for this are popular social media sites (e.g. Facebook). This space needs to form a unified repository for resources, with the ability to integrate with other HEIs for potential inter-institutional collaboration. This platform could also be a means of improving the level of academic input in the Shadow Module without impeding on the progress of students in Shadow Module sessions. Although there are web 2.0 tools in VLEs, they do not provide the flexibility of ‘socially centred’ web tools and could benefit from (for example) Facebook-like group features such as a module wall, events and comments, which can easily embed rich media (e.g. videos, PDFs, images).

Future thoughts
The Shadow Modules increased engagement, but needed a high level of input to build and sustain a community of practice that is self-perpetuating and of a high academic quality. Motivated and engaged students and academics, equipped with the right tools and knowledge of how to use these tools effectively, are a cornerstone to the process. Students are likely to require help adjusting to the pedagogy, partly in relation to how to organise and run the sessions, but also regarding how to interact in an informal manner with a large number of peers for collaborative learning. Furthermore, it is important that academics also become partners in the learning process, so they can learn how to best suit the generational needs of learners, and this too will require a culture change among academic staff. Future implementation and research should enable the
identification of the key pedagogical and technological features that make up a sustainable community of practice, as well as inform suitable institutional policy.

The pilot study has suggested that Shadow Modules are a viable and useful activity, and we intend to develop this pedagogy over the near future and to assess the long-term impact of the pedagogy to the student learning experience.

**Impact of project**

While there was no immediately apparent benefit to student examination results, there was nevertheless a notable impact of the project on student motivation, interest and engagement with the subjects studied. The generation of resources by some students was also of benefit to their peers for use as study and revision aids. In addition, the Shadow Modules enhanced the development of communication and literacy skills, as well as collaborative skills and improved self-confidence for working within groups. A stronger sense of community has been achieved as a result of Shadow Module activities. Giving students partnership and ownership of the curriculum is a key step towards the inclusion of students in curricular development, and the Shadow Modules have very great potential for the fostering of this.

Shadow Modules are very beneficial for the development and improvement of pedagogies and technological solutions, as they allow the student voice to be heard with clarity. By engaging students in the production and curation of learning resources, the content of the module, and the learning resources available, become more accessible and therefore of greater use. The process also acts as a model for the improvement of communication and practice among University staff, and informs pedagogic developments in learning and teaching of the contemporary student population.

The use of ICT resources to support resources produced by Shadow Modules also means that the collaborative learning experience and outcomes can be shared either within the immediate learning community, or the wider community as a whole, even when learners are unable to attend the timetabled sessions themselves. This leads to a more collegiate approach to learning, which is of great benefit to the academic development of students and mirrors the collegiate nature of academia as a whole.

**Bibliography**


Exploring interpretations of student-centredness that encompass partnership, community and empowerment

Cardiff Metropolitan University (UWIC) (seminar) – Sue Tangney and Ingrid Murphy

Introduction and overview

Student-centred learning has become a ‘slogan’ for what seems to be a range of ideas. The research cited in the seminar indicates that conceptions of student-centred learning do not necessarily align wholly within a constructivist frame, and that much can be gained from considering student-centred learning from other perspectives such as humanist and sociocultural conceptions of learning. This would encompass ideas such as empowerment, partnership and communities of practice, all ideas that are currently being discussed in higher education. It was suggested that its continuing reinvention has been driven by social, political and cultural pressures within higher education and the wider sphere.

The seminar drew on research currently being undertaken in Cardiff Metropolitan University (UWIC) as part of Sue’s doctoral study in which conceptions and applications of student-centred learning were explored from the perspectives of both staff and students. Constructivist interpretations tend to dominate the literature and were also significant in the research data; however, humanist and sociocultural interpretations were also prevalent, and it was suggested that these conceptions might enhance academic development work within contemporary higher education.

The seminar focused in particular on the humanist and sociocultural aspects of the literature and research findings. The relevant research findings were presented and were followed by practical application by Ingrid, who was one of the research participants and is teaching within an art and design context. Ideas such as partnership, community and empowerment were explored through the presentation and discussion.

Generation of evidence

The research was undertaken through empirical study using a predominantly constructivist grounded approach. Data were collected primarily through interviews with academic staff, but also with senior management. Focus groups were also undertaken with students.

Seminar findings

The seminar focused on research findings from the doctoral study above, which as stated, highlighted the significance of humanist and sociocultural perspectives in lecturers’ conceptions of student-centred learning. These are often underplayed or absent in writers’ descriptions of student-centred learning in the literature. Ingrid also reported that feedback on their student-centred approach to both curriculum design and delivery in the BA Hons Ceramics programme has been very positive. All quality measures from module evaluation, attainment and National Student Survey scores have shown a marked increase since these initiatives were introduced. Examples of good practice from this programme were presented in the seminar. Also presented was the research and development of a curriculum redesign project that explored how technology can enhance experiential learning in studio-based practice; this saw the development of a virtual learning environment for Ceramics students, which aimed to replicate the humanist student-centred approach evident in the studio delivery. Good examples of symbiotic partnership and student empowerment were evidenced in the focus group findings for this project and its subsequent evaluation.

Outcomes of seminar and emerging themes

The research perhaps indicates the significance and usefulness of broader conceptions of learning besides the predominant (and relatively narrow) constructivist conception. In addition, it is suggested that a technologist
approach to teaching may have exacerbated the appearance of ‘slogans’ such as student-centred learning. It is suggested that a more values-driven approach be taken to academic development and teaching per se.

The discussion focused on two aspects; firstly, understandings of student-centred learning. Ideas that were discussed most vigorously were: how students’ needs and learning styles fitted into ideas of student-centred learning; how student-centred learning aligned with employability; the pace of learning; and student contribution to learning. Second, how partnership between students and academic staff could be enhanced, and how students might become more effective change agents in the University. Ideas that were discussed included: ‘students as partners’ as an alternative discourse to students as consumers; students teaching other students; engaging students more meaningfully in curriculum design; engaging students more in assessment processes; the notion of co-construction of ideas within a ‘students as partners’ discourse; and the notion of students and staff on parallel journeys in the learning environment.

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Literature cited with respect to constructivism included:


Literature cited with respect to humanism included:


Literature cited with respect to sociocultural aspects included:

*Other documents cited included:*

3. Enhanced learning opportunities, electronic learning tools and excellence in teaching

A. Institution-wide

Completing the circle – working with students, service users and carers to develop animated narratives of experience

Glyndŵr University (Learning and Teaching Enhancement Fund Project) – Liz Lefroy

Keywords: animation; participation; service users and carers; Social Work; narratives.

Introduction and overview

The background to the project is the requirement made by the Care Council for Wales that all Social Work programmes should involve service users and carers in degree planning and delivery (Care Council for Wales, 2005). Since 2006, there has been a strong emphasis on participation at Glyndŵr University, and this has also had an impact on the Nursing, Occupational Therapy and Mental Health Nursing programmes. Service users and carers are, therefore, regularly involved in the development of teaching materials for students and in the telling of their stories as a means by which students gain a greater understanding of the impact of the professions they seek to join.

The specific trigger for the project was the development of a new Level 6 Social Work module, which will be led by service users and carers. The assessment for this module requires students to work in partnership with service users and carers to develop narratives of personal experience. Students and service users/carers will be able to choose to work in one of a variety of media and we wanted to find out whether animation could be one of these. While digital stories are commonly used as a means of telling personal narratives (for example, http://www.pilgrimprojects.co.uk, http://www.storyworksglam.co.uk), animation is used less often, but has a different range of creative potentials. As it is a more technically complicated medium (than, say, prose, poetry, poster) we needed to know what the possibilities and benefits of this might be.

Generation of evidence

A week-long animation Summer school was organised for 6-10 June 2011. It was attended by nine first-year Social Work students and six members of Outside In (a group of service users and carers who participate in the Social Work programme at Glyndŵr University). None had significant previous experience of using animation techniques. Support and guidance was provided by Yvonne Eckersley, Senior Lecturer in Animation, Darren Mason, MA in Animation, and Liz Lefroy, Senior Lecturer in Social Care.

On the first morning, a series of animated films Yvonne had made with a local advocacy group was shown. This enabled participants to see the potential of the basic animation techniques, which were then introduced. These included cut out, clay and drawing. Students and Outside In members then paired up to start developing ideas using mind mapping and storyboard techniques.

Two stop-frame camera set-ups were available for use by the group, along with art materials and a stills camera. The teams worked at their own pace, calling on support as needed, some making very rapid progress from an initial idea to shooting the film, others taking the full week. By the end of the last day, these initial ideas had been captured as segments of six separate films ready for editing. The voiceovers were also recorded. A Limited Manufacture Licence was purchased to enable the use of prerecorded music.

Once the films had been edited, the participants viewed them and made final changes.
Project findings and outcomes

The findings of the project were that using animation to develop personal narratives provides some very positive benefits. It is hard to claim that these are new evidence, but perhaps they are new within the context of participation in Social Work education:

- Using animation techniques provides an opportunity to tell a story anonymously in a fuller sense than digital story telling. A personal story can more easily be represented as a metaphor, or acted out by puppets, for example.
- Working outside of a traditional classroom setting emphasised the number of barriers that such a setting puts in the way of participation. Most participation in higher education happens in classroom settings with all the inherent power relations implied. The studio setting, as a novel environment, did not carry these inheritances in the same way.
- Students feel more positive about participation when they are also empowered, not merely recipients of stories. Hearing a negative story of experience in the classroom can undermine students’ confidence and arouse emotional responses that have no real outlet except for a general sense of injustice. Being able to work towards a common goal was a constructive experience.
- Service users and carers can feel more positive about participation when there is a specific activity involved, rather than simply talking about their experiences. It enables them to build more meaningful relationships with students, to receive ongoing feedback, and to respond to specific incidents and questions as they arise.

Impact of project

The impact is best described in quotations from students:

*It was an opportunity to work closely with (service user) without the restrictions of a classroom. I got to know him really well over the week without having to ask any questions.*

*The animation workshop ... is an excellent idea for service users to be able to articulate personal narratives in a way that they would not normally do.*

*As a student, it was interesting for me to see some of the powerful statements the service users were expressing. By creating a film, these statements will come to life and impact more on people’s awareness of the difficulties service users face.*

*I found that using animation as a medium allows a wide range of creative opportunities, not only in the telling of the story, but also in stimulating conversation we had during its manufacture.*

*What I discovered was that a narrative can be told in a way that is moulded to the uniqueness of the narrator.*

*Using the technical equipment did create anxiety for me at times ... However, it was new to us all thus creating an atmosphere of camaraderie.*

*With regards to working in partnership, I became very aware that making this animation was about (service user) telling her narrative.*

*This was a fantastic experience for me and probably one of the best ‘lessons’ I’ve had in my first year. I did feel that those who didn’t participate were missing out!*

And from the Outside In members who participated:

*It was a chance to see the students in a different light, away from the classroom in a more relaxed setting, and to see what progress they were making and how they were interacting with service users.*
It was a fun and interesting way to get my point across.

Working with the students gave me a chance to work out how they would solve a problem and if they would do it in a way that was uncomplicated.

I thought the animation added to the story and did not limit it in any way.

What I got from it more than anything was the interaction with students.

When you’re giving a talk, you’re like a teacher. Working with them on the animation was like being on the same level.

It gave purpose and understanding to how others perceive certain illnesses, and a view that, it you look past the alleged disability, there is a human being trying to live a life.

Bibliography


B. Departmental

Developing excellence in bedside teaching: an e-learning module

Cardiff University (Learning and Teaching Enhancement Fund Project) – Lynn Monrouxe, Chris Elsey, Andrew Grant, Joshua Dimbylow and Nick Webb

Introduction and overview

Active and sensitively managed patient involvement in medical education is vital in the drive towards the development of patient-centred professionalism. Bedside teaching encounters (BTEs) involve clinicians, medical students and patients and comprise any teaching and learning done in the company of the patient, not necessarily with a bed nearby (Janicik and Fletcher, 2003) as a formative and focused activity for students learning the *whats* and *hows* of physicianship (Monrouxe et al., 2009; Rees and Monrouxe, 2010).

While BTEs bring together a number of specific professional features of clinical learning – communication skills, obtaining medical histories, physical examinations, applying basic science, record keeping, evidence-based medicine, self-directed learning, time management – the teaching skills involved are frequently not explicitly taught to clinicians: it is often assumed that they *implicitly* know how to teach at the bedside. However, research using interactional analysis undertaken by the applicant demonstrates how teaching within BTEs is variable comprising excellent and poor teaching skills (e.g. Monrouxe et al., 2009). The specific outcome of this project aims to develop clinicians’ knowledge of students’, patients’ and clinicians’ expectations and perceptions of BTEs and to specifically facilitate the teaching of patient-centredness at the bedside.

Bedside teaching is a key context in which medical students learn clinical and communication skills, including aspects such as what a patient-centred doctor-patient interaction looks like. Most clinical teachers, however, are not formally taught how to teach students and generally rely on using methods and process that they themselves experienced as students. We developed an e-learning module using best evidence from current research in medical education to develop clinical teachers’ awareness of what patient-centredness means and how they might empower both patients and students to become more active during bedside teaching episodes therefore shifting from ‘dyadic’ doctor-patient, doctor-student interactions towards a more ‘triadic’ doctor-student-patient encounter.

Using minimal didactic ‘teaching’ interspersed with more hands-on application and demonstration of knowledge (including video identification and playback), we aim to: (1) highlight the reasons why patient-centredness should be a central concern within bedside teaching activities; (2) develop clinical teachers’ awareness of patient-centredness as values and behaviours; and (3) develop clinical teachers’ ability to actively include patients and students during bedside teaching activities. By the end of the module the learners will understand (1) the GMC’s requirements regarding medical students’ patient-centredness; (2) the core values that comprise patient-centredness, linking them with concepts such as ‘user involvement’ and ‘patient involvement’; (3) the roles that doctors, students and patients play within bedside teaching activities and how these are constructed within interaction; (4) the difference between ‘dyadic’ and ‘triadic’ bedside teaching; and (5) how clinicians can facilitate the inclusion of patients and students in bedside teaching.

Generation of evidence

We followed the seven-step project management for e-learning: (1) **planning**: we gathered basic primary information, engaged with Subject Matter Experts (SMEs) and IT specialists, ascertained content and technical specifications; (2) **content gathering/content analysis**: we undertook a literature search identifying perceptions of clinicians, students and patients of BTEs and identified all interactional analyses of BTEs (this informed the basis of the teaching activity and at this point the team decided to concentrate on the teaching
and learning of patient-centredness and empowerment of patients and students in the BTE); (3) **instructional design**: we decided that we would use constructivist learning and activity theoretical principles within our module – focusing on ‘learning’ rather than ‘teaching’ and having the module as interactional as possible; (4) **storyboarding**: we then designed the look/feel of the interface – using voiceovers, multiple learner exercises with high interaction, videos of BTEs that are also highly interactive and finally multiple-choice questions; (5) **development and production**: the module was then designed by the technical developers and the team then met to develop and agree on the on assets (e.g. graphics, photographs, videos). We video recorded a number of BTEs within General Medicine, choosing three for the alpha version of the package (to enable users to complete the module within a reasonable time); (6) **quality assurance**: we tested alpha version, obtained feedback and developed the beta version; (7) **e-learning package integration and delivery**: we are planning to gain continuing professional development points for this package.

**Current project progress**

The e-learning package has yet to be made available so no evaluation has been undertaken to date, although this is planned.

There is the potential for transferability of our e-learning project. While it has been developed for clinical teachers within medical education, the objectives could equally be transferred to other healthcare professions whenever students are taught in the presence of patients.

**Bibliography**


HE research into FE teaching: improving links, raising standards and widening perspectives

Cardiff University (Learning and Teaching Enhancement Fund Project) – Dr Peter K. Mackie

Keywords: case studies; Geography; widening access; research-led teaching; further education.

Introduction and overview

Geography teaching in the School of City and Regional Planning (CPLAN) at Cardiff University is research-led and delivered by staff that are highly regarded in various fields of Geographical research. CPLAN also has a reputation for innovation and excellence in teaching, which results from continual reflection on practice, identifying challenges and acting to improve. Two key challenges have recently been identified, both of which exist across other Welsh and UK institutions. This project was developed to make some inroads towards addressing these challenges, offering a model of good practice that can be replicated across the UK. Firstly, by improving links between further education and higher education, students of all backgrounds become more aware of the material covered at university, potentially raising interest and aspirations, as well as reducing misconceptions that can lead to withdrawal from a degree. Secondly, the project ensures that A-level teaching is research-informed, a challenge that few have sought to address.

Generation of evidence

Development and implementation

An example case study was produced and distributed to academic colleagues, alongside a comprehensive briefing paper that outlined: i) what was required and by when; and ii) the broad themes being covered at A-level that have some resonance with the research being undertaken in Cardiff. Approximately 20 case studies were then submitted, edited and formatted. During this initial development phase FE Geography teachers were invited to attend a ‘Research into Teaching’ day where a sample of the case studies would be presented by their authors.

In total, 17 FE Geography teachers attended the event, which was held at Cardiff University. The day consisted of a range of local and international case studies and one research methods case study. On the day of the event, the project website containing all case studies was also launched.

Methods of evaluation

FE teachers completed feedback forms following the event; this provides a good account of the strengths and weaknesses of the case studies and the event. Data are currently being collected on the number of visits to the case study webpage, which should demonstrate the extent to which teachers are accessing and subsequently using the resources. Data are also being collected on the number of widening access students who apply to Cardiff, although the causes of any changes will be extremely difficult to isolate.

Project findings and outcomes

The innovation is still in its infancy, with only a small cohort of teachers having accessed case study information and only 17 teachers attending the ‘Research into Teaching’ day. Early findings from the evaluation of teacher feedback suggest the following:

- the value of research methods examples: there is a clear message from teachers that the case studies on innovative research methods were particularly useful in informing A-level teaching:

  The session on research methods generated some new ideas and was most useful;
the usefulness of multiple resources: teachers felt that the combination of online case studies, a printed case study booklet, and the opportunity to discuss case studies with lecturers, constituted a good range of sources and opportunities to engage with the material:

Some excellent case studies on a variety of topics pitched right with back up on the website and in the booklet. A very well resourced programme;

inspiring teachers and students: teacher feedback certainly suggests that the material will be delivered to students both through their own teaching and through students accessing the materials independently via the website. Furthermore, several teachers commented that they felt inspired by some of the topics and it is possible to infer that this message will reach students, who may then go on to study at university, where previously they might not have done so. More objective measures of impacts on recruitment will be used as factors influencing student decisions to apply are monitored over time:

An inspiring range of high quality research presented – reminded me of why I’m a Geographer.

While some of the desired outcomes (particularly relating to widening access aims) can only be measured over a longer time period, this initiative is clearly perceived very highly by A-level teachers. The project has improved links with a sample of schools who report that they will use the case studies in their teaching.

The basic methods for delivering this initiative have been outlined and a link to the project website is given below; it is hoped that these will provide the basis for others to pursue similar initiatives in order to enhance the links between HE and FE and to improve the dissemination of research into teaching not only in Geography but in other disciplines too.

http://www.cardiff.ac.uk/cplan/research/cardiffcasestudies/index.html

Impact of project

While some of the project impacts can only be measured over the longer term, it is apparent that the following key impacts can already be demonstrated:

- improved links between HE and FE: this was one of the primary challenges the project sought to address.
  No fewer than 17 FE teachers are now more effectively linked with an HE provider and as the project continues to develop each year, and other HE providers develop similar projects, the number of FE providers with strong links to HE providers will significantly increase. The associated impacts will need to be monitored closely;

- improved dissemination of research into teaching: the project has ensured that research is available in digestible formats and feedback from A-level teachers demonstrates that this research is now feeding into A-level teaching.

Bibliography


**Electronic case management training materials project**

**Cardiff University (Learning and Teaching Enhancement Fund Project) – Julie Price**

**Keywords:** innocence projects; electronic case management systems; LexisNexis Casemap; criminal appeals; pro bono casework.

**Introduction and overview**

LexisNexis has, for some years, given Casemap (a high-value electronic case management system that is commonly used by US lawyers, and which has recently been introduced to UK law firms) free of charge to UK innocence projects in the hope that it will become a tool of choice for student ‘law clinic’ casework. Prior to this Training Manual, there was no general electronic case management training package tailored to innocence project work. Cardiff Law School sought to create a basic set of materials for use by other universities and by LexisNexis, to promote electronic case management in an innocence project context, and to jump-start future collaborative discussion about enhancing this product year-on-year by introducing real-case examples from other universities.

IT and transferable skills learned are sought after by employers and provide an excellent platform for job interview discussion. Students using this Training Manual will be directly exposed to summarising legal documents and identifying key evidential issues, skills that are vital in legal employment.

**Outcomes of project**

We have learned that electronic case management systems for any area of legal work are to be aspired to. There are many benefits of moving away from a paper-based case system for university pro bono law clinics. These include: the danger of losing key pieces of paper/evidence is removed; many students can access the same documents electronically at the same time; it facilitates work from home and/or areas other than the university environment; it facilitates new ways of delivering practical teaching and training; it saves work done by one group of students being ‘lost’ when the following cohort takes over a case, because all notes/thoughts/avenues of investigation should be properly recorded and acted on if the electronic system is used correctly; it assists in monitoring activity and quality of student work.

However, there are drawbacks. Producing this Training Manual has reinforced to us that there is a huge amount of time and effort required upfront properly to utilise an electronic system. Voluminous paper files have to be scanned in manually, then properly named and filed electronically for the system to work. Many universities simply will not have the time or resources to do this, even though initial time invested would reap rewards later in the casework, especially in cases that are likely to be current for many years, as is the case on criminal appeals work.

As regards the possibility of interdisciplinarity, this is a notable benefit of an electronic system. In past innocence project cases, at Cardiff Law School we have been fortunate to have expertise volunteered from colleagues in different disciplines; for example, a forensic pathologist from our medical school has advised us on cause of death issues, various computer experts have helped out with mobile phone technology questions, and other internet questions, and we have worked with colleagues in Journalism to seek access to media reports on our cases. If universities can invest the up-front time to scan all documents in, then sharing access to evidence and documents will be far simpler if we can just give access to other colleagues when we seek their advice.
We would like to invite universities with innocence projects to work with us to enable this tool to evolve organically into something even more tailored for this particular type of pro bono work. With this in mind, we hope that colleagues will offer examples from their own cases, that will provide wider examples of the types of evidential and investigation issues that are found in this criminal appeals work.

We do not yet know what the impact of the project will be. It depends on whether other universities have staff or key students who are not afraid to embrace new technology. We will enter into correspondence with other universities running innocence projects to discuss how best to promote the use of electronic case management systems.

Links

See [http://www.hassnet.co.uk](http://www.hassnet.co.uk) for the specialist expertise and services offered by our partner in this project.


See [http://www.innocencenetwork.org.uk](http://www.innocencenetwork.org.uk) for details of other universities with innocence projects.

See [http://www.lexisnexis.co.uk](http://www.lexisnexis.co.uk) – providers of the licence to use Casemap.

Bibliography

Using GIS and social networking to enhance learning opportunities

Aberystwyth University (Learning and Teaching Enhancement Fund Project) – Dr Peter Bunting and Dr Carina Fearnley

Keywords: technology; applications; GIS; learning; social networking.

Introduction and overview

The overall aim of this project was to assess the usefulness of iPads for field teaching within Geography. Specifically, we wanted to answer the following questions:

- Can iPads be used in place of paper-based field handbooks?
- Can social networking be used to enhance learning and understanding in fieldwork, as well as enhance employability skills?
- Can remote sensing and GIS data be displayed and manipulated usefully on an iPad in the context of University (undergraduate and postgraduate) fieldwork?
- Does the use of an iPad enhance the students learning experience?
- Does the use of an iPad encourage students to connect the theory with practice?

In order to analyse the exercises completed two methods were adopted: the use of an online survey and a discussion. The methods of analysis employed in this study are those typically used within qualitative and quantitative analyses.

Generation of evidence

To generate the evidence required for this project a one-day workshop was undertaken with a number of undergraduate and postgraduate students, during which time they undertook similar exercises to those that would have been undertaken within the field courses they attended in the previous academic year. The students were then asked, through an online questionnaire and discussion, how they felt the use of the iPad and the social-networking applications we used would have affected their learning process, and in the case of the remote sensing and GIS exercises, the quality of their data collection and understanding. The workshop included an introductory session to discuss our aims and how the activities of the day fitted in with their prior learning experiences on field trips and excursions.

Project findings

The key findings of this study have been:

- The iPad provides a useful tool that the students enjoy using, for disseminating information to the students within the field, catering for multiple learning styles.
- The applications for interacting with social networking services such as Twitter are easy to use, and although they have some limitations, are ready to use now.
- Many of the remote sensing and GIS applications are good at displaying data provided by the application developers for consumption, but are limited or have significant weaknesses when it comes to putting your own data into the applications or recording information in the field; however, they are still deemed to be highly useful.
- Currently, iPads provide a very useful addition to the tools that can be used teaching within the field, but many of the software applications currently available and reviewed in the project are only suitable for specific tasks or exercises and as yet cannot replace the paper field handbooks currently used. Although, with further development, applications similar to Flipboard could be used in this way.
- In outdoor environments the readability of the screen is significantly decreased, particularly on a bright day. With matt screen protectors this can be improved, but is still not ideal.
The students found the iPad easy to use with minimal time to learn the user interface even though a number of them had no experience with an iOS device.

Outcomes and impact of project

From the questionnaire it is evident that the students felt that the iPads were a real advantage for fieldwork, particular for displaying and manipulating mapping data when compared to paper maps. The students also felt that the availability of Google Earth while with the field and in relation to planning fieldwork activities was a real advantage, mainly owing to the high resolution imagery that is commonly available. It was also felt that the extra information shown through Google Earth was very useful, particularly as it was shown in the context of the local area to where the information is useful so students did not have to search through a handbook to find it. It was also pleasing to see that the students felt that the extra information prompting them on the theory introduced within lectures would help them to connect this material to that which is shown to them with the field, which, as stated in the educational literature, is a significant problem across the fields of remote sensing and GIS.

The growing recognition of social networking as a tool for improving teaching and learning is likely to result in an increasing number of applications for teaching, or adapting current applications for a wider range of uses. Therefore this study provides some initial ideas on the use of applications for teaching and learning, but it is expected that the current limitations may cease to exist in the future. The iPad is increasingly encouraged in academic environments (see Apple links in the links section below), in particular for medical students and practitioners, given their portability and ease to access information. Therefore, it is feasible that iPads and associated applications could become a key part of fieldwork in future years.

Impact of project

The project indicated that the use of technology in the field would be worth further investigation. It is intended to use some of the tools employed during this study to enhance student learning during the 2012 Aberystwyth University field trip to New Zealand North Island to further test the application within a group of ~35 students. Feedback on this will be used to further understand the role of iPad technology in the field for future years.

It appears that using an iPad enhances the different medium through which students can learn, enhancing some aspects of moving though the Kolb learning cycle (1984) and catering for further learning styles. However, caution needs to be taken as the time to prepare these materials can be time consuming at this early development stage. Therefore, although there is clear potential for future use, iPads are still at an early development stage and it is hoped future applications will enable easier and streamlined integration of content for both GIS mapping, and social networking uses.

Specifically, in the context of this project, iPads and applications were used to increase the number of learning styles supported during fieldwork outside of the classroom, and for fieldwork preparation/reflection. Further testing and implementation is required and further best practices need to be explored before wider adoption is possible. Therefore we feel this research has shown the potential for increasing student learning and engagement within Geography fieldwork using mobile computing, while additionally building on students employability skills through the familiarity and use of new technologies.
Links

Apple resources

How the iPad can be used for educational purposes: [http://www.apple.com/uk/education/ipad](http://www.apple.com/uk/education/ipad)


iPad Applications

Probably the most popular application on the desktop but on the iPad it uses ESRI to provide background layers, and to put your own data into the app a WMS (i.e. ArcIMS) is required.

A tool that encourages people to create an account and upload a photo every day. This could be a resource for students to upload one photo each day that best represents what they have a learned. They can additionally add text to summarise their day, and reflect on their key thoughts. Blipfoto can be used online or as an iPhone app. See: [http://www.blipfoto.com](http://www.blipfoto.com).

This app can help provide orientation and help explore larger cities or areas offline, and it can be used with a GPS to aid orientation.

This provides an extraordinary communication tool that most students use. Frequently students set up 'groups' to upload photos, links and videos. This provides a useful method to share information easily. Educational weblinks, videos and discussion forums, along with voting schemes, can be set up making it a valuable additional resource. See: [http://www.facebook.com](http://www.facebook.com).

As a social magazine that pulls together information from URLs and photos posted on Twitter and Facebook this is a very beautiful tool, but it can also be highly powerful in encouraging students to review information available on the internet. For example, if a particular tag is used in Twitter, Flipboard can then generate an attractive interface that is easy for the students to use to view all these resources between students. Additionally students could develop their own tag for their group or individual projects.

**iCMTGIS:** [http://itunes.apple.com/gb/app/icmtgis/id409254102?mt=8](http://itunes.apple.com/gb/app/icmtgis/id409254102?mt=8) [last accessed August 2011]. A GIS digitising app; however, this was found to be difficult to use and to have a poor user interface.

**iCMTGIS II:** [http://itunes.apple.com/gb/app/icmtgis-ii/id516124344](http://itunes.apple.com/gb/app/icmtgis-ii/id516124344)

A simple GIS app that allows you to show GIS layers over Google Earth imagery and to digitise ESRI shapefiles.

This app is by the BGS and provides access to their geological mapping of the UK. Very useful for field courses within the UK.
This app can be used to edit video and integrate it with photos and text to review an activity or project. A cheaper alternative is to use Videolicious to compile movies together, but it lacks the range of tools that iMovie offers. See: [http://itunes.apple.com/gb/app/videolicious/id400853498?mt=8](http://itunes.apple.com/gb/app/videolicious/id400853498?mt=8)

This app allows digitising to ESRI shapefiles and spatially located images (e.g. satellite images) to be loaded through iTunes and displayed as background imagery, alongside Google Earth imagery. To load your own imagery into this software it has to be converted first using a desktop application, and an in-app purchase is required to allow external datasets to be imported or exported.

A copy of the desktop application for the iPad/iPhone, which presents similar functionality and data. Additional data layers can be presented through the app by uploading to a Google account through the Google maps webpages.

This app provides a 3D view of the Earth and shows the location of many of the satellites orbiting the Earth, including many of those that are used for remote sensing. The app would be more useful if it had a search function.

This app provides a tool to convert between coordinate systems (e.g. UTM to lat, long), including those from the inbuilt GPS.

An app that allows KML files to be displayed (including images) over Google Earth imagery. This can already be done in Google Earth, but this app allows your data to be stored locally on the device rather than uploaded to a server. The user interface could be improved.

This app can be used during fieldwork and group discussions and is the bestselling handwriting app. It allows sketches and notes to be made without typing. It therefore can enable field sketches and field notes.

This app provides up-to-date information of the latest earthquakes around the world including links to more information and the ability of display the location over Google Earth imagery.

Twitter can be used to share useful links and information as discussed in this project. For example, students can post information using an established profile with a common password about the field locations prior to the trip, upload photos taken in the field as well as additional links and information, and then add further information, sketches, links or useful data uploaded onto websites. See: [http://www.twitter.com](http://www.twitter.com).

This is a multi-media tool that combines thousands of sources to present concise, interactive summaries of millions of people, places and things in an experience optimised for the iPad.

Wikitude is an augmented reality app, which shows points of interest overlaid onto the image from the iPad or iPhones camera.

An online blog for those students who may want to write more, as well as integrate photos. It can also be used to show location as well. See: [http://wordpress.org](http://wordpress.org).

This app generally contains quite basic information, but it is nicely presented so maybe useful for some audiences.

A private form of Twitter that can be used by businesses, or set up to be used within groups. This app is free as a basic version and has a number of advantages over Twitter. It is private and thus messages can only be seen by members of the group. There are also additional apps that can be used to run polls, ask questions and discuss ideas. This could be a useful resource for the students to provide feedback on fieldwork, both within the group and with staff. However it is not possible to use Yammer with apps such as Flipboard yet so there are some limitations. See: [http://www.yammer.com](http://www.yammer.com).

**Useful journals**

**Journal of Geography:** [http://www.tandfonline.com/toc/rjog20/current](http://www.tandfonline.com/toc/rjog20/current)
The *Journal of Geography* contains numerous useful articles regarding best practice for teaching Geography, including field teaching and GIS.

**Journal of Geography in Higher Education:** [http://www.tandfonline.com/toc/cjgh20/current](http://www.tandfonline.com/toc/cjgh20/current)
A journal that publishes articles specifically concerned with best practice in teaching Geography at university level, including field teaching and GIS.

**Journal of Planning Education and Research:** [http://jpe.sagepub.com/](http://jpe.sagepub.com/)
A journal that publishes articles on best practice across all disciplines.

**The Professional Geographer:** [http://www.tandfonline.com/toc/rtpg20/current](http://www.tandfonline.com/toc/rtpg20/current)
*The Professional Geographer* is a journal that publishes articles covering a wide range of topics within the field of Geography including teaching practices.

**Online resources (also see bibliography)**

**Designing Effective Fieldwork for the Environmental and Natural Sciences:**

**Effective Practice with e-Learning** (JISC report):
[http://www.jisc.ac.uk/media/documents/publications/effectivepracticeelearning.pdf](http://www.jisc.ac.uk/media/documents/publications/effectivepracticeelearning.pdf)

**Fieldwork Education Resources Collection:** [http://www.openfieldwork.org.uk/api/](http://www.openfieldwork.org.uk/api/)
A directory of field course materials available online.

**Facebook: An educational support tool for teaching Earth Science:**
[http://www.gees.ac.uk/planet/p22/ds.pdf](http://www.gees.ac.uk/planet/p22/ds.pdf)

**Improving Student Learning During Travel Time on Field Trips Using an Innovative, Portable Audio/video System:**
Mobile Devices as ‘Boundary Objects’ on Field Trips:
http://www.rcetj.org/index.php/rcetj/article/viewArticle/84

Supporting fieldwork using information technology: http://www.gees.ac.uk/planet/p18/jm.pdf

Bibliography


4. Education for sustainable development and global citizenship (ESDGC)

A. Departmental

Supporting innovative education for sustainable development: an online teaching archive

Cardiff University (Learning and Teaching Enhancement Fund Project) – Dr Jon Anderson

Keywords: sustainability; practice; individual; teaching; internet.

Introduction and overview

This project sought to enhance student teaching and learning in relation to sustainable development. It did so through the dissemination of innovation developed on the module ‘Sustainability in Practice’. ‘Sustainability in Practice’ is the flagship module on the MSc Sustainability, Planning & Environmental Policy (SPEP) in the School of City & Regional Planning, Cardiff University. The module has run since 2007-08. Building directly on the project leader’s ESRC-funded work on ‘Environmental Identity and Activism’, the module is concerned with individual action to promote sustainable development. Due to the success of these taught materials the module was presented with the Royal Town Planning Institute’s prestigious ‘Excellence in Planning Education’ award in 2009.

As a consequence, this project was solely purposed around dissemination, rather than research and evaluation. Dissemination of the resources collated on the ‘Sustainability in Practice’ module was achieved in two keys ways. Firstly, through the creation and maintenance of an online website that archives the innovative teaching and learning resources used in this module (http://www.citizensustainability.com). Secondly, this online archive was connected to virtual teaching and learning repositories, including submission to the ‘XPERT’ (Xerte Public E-learning ReposiTory) and ‘Jorum’ online Open Educational Resources.

Generation of evidence

In order to realise the aims of the project the project leader drew on professional development training already undertaken in website creation and design (funded through a Cardiff University ‘Teaching Innovation’ grant). The project was supported by the School’s Technical Assistant, Matthew Leismeier.

WordPress templates, domain names and virtual server space were purchased via GoDaddy.com, an online company that provides easy-to-use web bundles that facilitate website creation. The project involved the design of an interactive WordPress portal to search and access pedagogic materials. A range of lecture resources and support exercises were posted, alongside film and audio recordings of lectures, focus group discussions and expert Q&As. The website demonstrates how carbon footprint calculating devices can be used in teaching, how student participation in focus groups can foster peer learning, and how the use of written journals and video diaries can facilitate citizen reflection and action (see Haye-Conroy and Vanderbeck, 2005; Ellis, 2002). Following assessment, anonymised reflexive journals were collected, which contribute to the learning and teaching resource. Field study visits to the Centre of Alternative Technology, alongside Q&A sessions with sustainability and citizenship experts were filmed and produced as digital vodcasts. Such films, as Staddon et al. (2002) state, offer remarkable potential to engage, (re)position and educate students. Teaching experience has shown this empowers individuals to make better decisions in line with sustainability concerns. Interactive comments forms are also available to website visitors. Such online mailroom discussion offers the potential to not only disseminate innovation in relation to sustainability and teaching, but also contribute to positive citizen action in this regard.
Existing evidence

The project was concerned with providing an external facing internet site to disseminate the innovative teaching resources developed through the MSc module ‘Sustainability in Practice’. This module is centrally concerned with individual, personal action to promote sustainable development, and how appropriate behavioural change might be encouraged – an important policy agenda in fields as diverse as transport, energy use, food consumption and democratic politics. The module places the current emphasis on individual responsibility for sustainable development in its wider theoretical and political context, and introduces a range of debates that illuminate different aspects of society-environment relations. These include environmental ethics, rational choice theory, identity, citizenship and the role of the mass media.

Running through the module is a concern for novel, qualitative research methods in the social sciences, focused on individual and group reflection about environmental behaviour. This reflection is informed by the use of carbon footprint calculating devices. It is supported by methodological training in the use of reflective field diaries, and students participate in focus groups. This research contributes to students’ own learning and builds up a corpus of data for analysis by subsequent cohorts of students. A field study visit to Machynlleth Centre for Alternative Technology (CAT) also forms part of this module. The project funded by the HEA delivered these teaching and learning resources to a new, externally facing, internet site (http://www.citizensustainability.com) as well as storing materials on existing teaching and learning repositories.

Outcomes and impact of project

The project’s chief outcome – the website: http://www.citizensustainability.com – was published in July 2011. Following the website set-up, links and resources were submitted to both Jomec and XPERT repositories.

Sharing of teaching innovation in this way has broad scope for take-up in other disciplines. Advances in iTunes U and other file-sharing media offer the opportunity to share academic, teaching and learning insights with broader publics, enabling the dissemination of good practice and reflection among a range of stakeholders. Such dissemination also offers the opportunity for social sciences and universities to be seen to be contributing meaningfully to the broader citizenry, and demonstrates how social science knowledge and reflection can form a crucial and practicable contribution to the broader health and wellbeing of society.

Plans have been made to publicise the Citizen Sustainability website through the School of City & Regional Planning’s own virtual space, and through Cardiff University’s world-leading, ESRC-sponsored ‘Sustainable Places’ research institution.

The project has been disseminated at Cardiff’s Technology Enhanced Education Conference (2012), and through MELSIG’s Media Enhanced Learning Community.

It will also be publicised through academic mail forums (including critgeogforum, sociologyforum, Centre for Built Environment Education, and Geography, Earth & Environmental Sciences). All online resources will be continually maintained and updated by the project leader. A ‘hits counter’ will monitor site usage.

Links

Citizen Sustainability website: http://www.citizensustainability.com

Jorum archive repository: http://www.jorum.ac.uk

XPERT (Xerte Public E-learning ReposiTory): http://www.nottingham.ac.uk/xpert/about.php
Bibliography


5. Employability and entrepreneurship

A. Institution-wide

Problem-/inquiry-based learning for employment: meeting current and future challenges through collaboration

Cardiff Metropolitan University (UWIC) (seminar) – Ruth Matheson and Steve Whitcombe

The aim of this seminar will be to explore the use of inquiry based learning (PBL/IBL) in relation to preparing students for employment. In particular it will focus on the use of inquiry-based methods to enhance creative thinking, promote knowledge and encourage professional identity (from the student perspective).

A brief explanation of both PBL and employability set the scene, providing links between the attributes encouraged by PBL and those highlighted by the CBI as desired graduate skills, knowledge and attributes. Presentation of findings drawn from recent doctoral studies explored the value that different student groups (A-level and Access courses) on entry to higher education place on knowledge and how these values influence their transition to university, experiences of PBL and the development of employability skills. A café-style approach was adopted to promote the sharing of practice and to develop some practical solutions to identified current challenges.

Findings of a longitudinal study on the use of PBL to promote creativity in student thinking (recognised as one of the essential employability skills in a rapidly changing work culture) were presented. Highlighted were the practical difficulties in developing a PBL curriculum that encourages risk taking, adaptability, a place to challenge and be challenged and that develops autonomous learners. Practical exercises provided an opportunity to adopt a solution-based approach to explore some of the current challenges facing HE/FE providers in designing learning opportunities, assessment, easing transition to HE and evaluating student learning in relation to employability skills.

Discussion between academics regarding the challenges of raising students’ awareness of the employability skills within the curriculum led to insights into the link between the embedding of employability skills and PBL. In particular was the shift needed during the transition to higher education by students coming from different educational pathways. The need for a creative workforce has been highlighted by employers, educational policy since the Dearing report (1997). The processes undertaken when utilising a PBL cycle can be clearly linked to the processes undergone in the analytical framework when being creative.

A recent doctoral study into Occupational Therapy students’ perceptions of knowledge and skills while undertaking a problem-based learning (PBL) course informed the first part of this seminar. This was followed by the findings of a qualitative longitudinal study exploring the perceptions of aspects of PBL that enhance or inhibit creativity. Discussion between academics regarding the challenges of raising students’ awareness of the employability skills within the curriculum led to insights into the link between the embedding of employability skills and PBL. In particular was the shift needed during the transition to higher education by students coming from different educational pathways. The need for a creative workforce has been highlighted by employers, educational policy since the Dearing report (1997). The processes undertaken when utilising a PBL cycle can be clearly linked to the processes undergone in the analytical framework when being creative.
**Generation of evidence**

The doctoral study utilised qualitative methodology through the use of semi-structured interviews with final-year Occupational Therapy students. Students were sampled on the basis of their previous educational pathways, i.e. a traditional A-level route or through Access qualifications in health and social care. The data were analysed heuristically through the theoretical frameworks developed by Basil Bernstein (a sociologist of education; 2000).

The longitudinal study followed Occupational Therapy students through their three years on a PBL course. Two focus groups were conducted each year to identify and verify emerging themes. Volunteer sampling was used to form the focus groups in each year. The data generated were qualitatively analysed using coding and identifying emergent themes. Themes were taken back to the focus groups for verification and elaboration.

**Project findings**

Within the seminar the participants were directed to the document *Future Fit: Preparing graduates for the world of work*, published by the CBI and Universities UK (2009), to explore employability skills and these were linked to skills developed through problem-based learning (Barrows, 1986) and underpinned by adragological principles. Specific links were made between employability skills (such as team working, problem solving and self-management) and students’ experience of PBL through drawing on the student voice.

*I felt that PBL was good because I knew I had the skills to find things out, what questions to ask and who to go to, to find out information.* (OT student)

The above quotation demonstrates team working and in particular a ‘can do’ approach, which is recognised as one of the attributes that underpins employability skills (CBI).

*I think problem-solving is a very important skill and the PBL course makes us very good problem solvers … For me OT is about having the skills and ability to go and look at stuff, having the skills of researching about things.* (OT student)

Here an awareness of the importance of self-management and problem-solving skills is very evident.

Findings from a study, looking at the use of PBL to enhance creativity, highlighted the need for inclusion of experiential learning within the PBL curricula in order for students to think outside of the box and take risks with their learning, with low-stake consequences, allowing exploration – the freedom to explore.

**Outcomes of project**

*Academics need to:*

- increasingly recognise the importance of transition in providing learning opportunities that bridge the different pedagogical principles of PBL and higher education;
- make the PBL programme outcomes and links to employability more overt from the outset;
- design learning materials that encourage creativity of thought and prepare students for an ever-changing employability landscape and lifelong learning;
- develop assessment methods that value different types of knowledge and focus on process and skills developed (e.g. patchwork text, presentation vivas) and that value group work skills, different modes of communication and entrepreneurship;
- provide staff development for PBL facilitators to help them establish a safe and challenging environment for student learning.
Professional developers need to:

- promote PBL methodology as a means of enhancing employability skills;
- encourage the use of assessment that values employability skills and reflects the philosophy of PBL;
- promote the value of experiential learning, particularly in the real world to contextualise academic learning with future practice.

Learning technologists need to:

- recognise the potential for virtual learning technologies to develop creative triggers and opportunities for social networking to promote student learning.

Senior managers and policy makers need to:

- recognise the potential of PBL for enhancing an employability agenda and meeting Government initiatives.

Student learning will be enhanced by:

- increased transparency of the curriculum and recognition of different educational pathways prior to HE;
- an increased awareness of the need to be equipped for an ever-changing workplace and valuing the PBL process in developing this – taking more responsibility for self-management from the outset.

Emerging themes

Assessment:

- the challenge of assessment design that values the PBL process;
- designing assessment that reduces strategic learning and steers students away from immediately focusing on the outcome;
- assessment criteria that promote risk taking and knowledge.

Transition from prior education to HE:

- the need to develop clear guides for the students regarding expectations and the transition process;
- the need to develop learning opportunities that explore graduateness from the outset and set aspirations;
- theoretical foundation in building confidence to explore.

PBL implementation:

- the need to shift the mindset of staff and students to embrace PBL;
- design of triggers that promote skills and integrated knowledge and practice and encourage entrepreneurial thinking;
- use of students as partners in designing learning opportunities.

All of the above would merit further investigation as these were only touched on within the time frames available.
Bibliography


Determining professional development needs of teachers across Wales

Bangor University (Learning and Teaching Enhancement Fund Project) – Dr Susan Jones, Dr John Lewis, Dr Jean Ware and Dr Cathal Butler

Keywords: continuing professional development (CPD); accredited courses; Welsh-medium provision; teachers and lecturers; funding.

Introduction and overview

Wales constitutes a unique context for continuing professional development (CPD) provision as education is devolved to the Welsh Government (WG) and both the curriculum and organisation of education has diverged from that of England since devolution. One in three schools in Wales provides education through the medium of Welsh and the WG vigorously supports the role of education in achieving a bilingual Wales (WAG, 2003.) Consequently, there is a need for CPD through the medium of Welsh. Between 2003 and 2010, Wales had a specific funding mechanism in place via the General Teaching Council for Wales (GTCW) to promote teachers’ participation in CPD.

There are a number of significant issues related to CPD in Wales at present including the cessation of the GTCW’s funding for professional development, the rise in undergraduate fee levels and the uncertainty about postgraduate fee levels. Also of relevance are changes currently under consideration in Wales, such as encouraging teachers to undertake a Masters during their early professional development (EPD) years. It is, therefore, timely that providers, such as the higher education (HE) sector, should be made more aware of the PD needs of teachers in Wales.

This study aims to discover the PD needs of teachers across Wales. It looks specifically at EPD/CPD and Masters-level provision. The main research questions are:

• What are teachers’ (including lecturers at further education colleges) perceptions of their EPD/CPD and Masters provision needs?
• What are schools’ and further education colleges’ perceptions of EPD/CPD and Masters provision needs?
• Which methods of EPD/CPD and Masters delivery would facilitate teacher participation?

It is hoped that the results of this study will allow the HE sector to tailor their PD provision and delivery more closely to the needs of the teaching profession across Wales.

A mixed-methods approach was used so that the statistical data collected through the questionnaire could be enriched by individual accounts obtained via a semi-structured interview process. This would provide a more complete picture of the area being studied and minimise bias (Cohen, Manion and Morrison, 2011).

Researchers recruited to carry out the interviews were all members of staff from the School of Education who came from a teaching background and had attended training.

Initial survey

The bilingual questionnaire was sent to schools in all parts of Wales and to all sectors including primary, secondary, special schools, pupil referral units and further education colleges. It was divided into three main sections:


• Section A gathered demographic data related to the respondents;
• Section B gathered data related to teachers’ perceptions of their PD needs and the delivery methods that would facilitate teacher participation;
• Section C (completed by EPD/CPD leaders only) gathered data related to the school’s training priorities for teachers related to strategic planning.

The questionnaire was piloted with staff at the School of Education, who were recent practitioners. Their responses were used to modify the document before it was sent out to institutions.

Sample selection

Of the 47 individuals who expressed an interest in being interviewed, 20 were chosen to reflect, as far as possible, the characteristics of the 260 questionnaire respondents from the 219 institutions contacted. They reflected the distribution of schools across Wales, the language medium through which they responded, the sector in which they taught, their position in school, gender, teaching experience, qualifications (in relation to Masters accreditation) and their level of interest in CPD. Interviews were audio recorded, with the participant’s permission and in the language of their choice.

Data analysis

The quantitative data from the questionnaire were analysed using SPSS. Responses to the open questions were collated and categorised. A number of themes were identified from the interview data through a process of listening and discussion between the research team. The themes were then ranked and the most salient identified. Portions of the interviews relevant to these themes were transcribed. Finally, quantitative and qualitative data were integrated for further analysis related to the key questions and identified themes.

Representativeness of the sample and response bias

A total of 3,557 questionnaires were sent to schools. There were 260 responses from teachers. Of these, 35.4% (92) responded using the Welsh version of the questionnaire and 64.6% (168) responded using the English version. The majority of respondents were female (68%, 177). Most responses came from secondary schools (53.8%, 140), followed by primary schools (32.7%, 85), special schools, (7%, 18) further education settings (5.7%, 15) and two responses from teachers working in pupil referral units. The majority of respondents were classroom teachers (160, 61.5%), with 72 (27.7%) middle leaders, 45 (17.3%) senior leaders, and 28 (10.7%) EPD/CPD leaders. Forty-seven of the 260 questionnaire respondents declared an interest in being interviewed. Of these, 20 respondents were selected. The teachers who responded covered a wide spectrum from newly qualified teachers (NQTs), to those teaching for more than 15 years. However, the sample who responded may not be wholly representative of teachers in Wales or free from bias for a wide range of reasons.

Five key sets of findings emerged from the questionnaire:

1. Teachers’ level of interest in pursuing accredited CPD

The primary factors that contributed to the teachers’ decision to undertake CPD were the desire for professional development and the hope that CPD would benefit their career prospects. In total 26.9% of teachers had undertaken some form of diploma or Masters-level training with 40% of these having been teaching for 15 years or more. The majority of teachers said they were either quite interested, or very interested, with only 22.3% (58) indicating they were not interested in pursuing accredited CPD. Secondary teachers showed more interest than those in the primary sector, and teachers with more than 15 years
experience showed considerably less interest than those with less experience. There was no significant difference based on gender.

2. Teachers’ preferred mode of CPD delivery

School-based daytime courses were the preferred option for teachers, with weekend courses being the least popular. The most frequently stated preference for language of delivery was English. There was a significant association between the level of interest in CPD and the distance they were willing to travel, with the limit most frequently selected being up to 30 miles.

3. Areas of CPD of interest to teachers

In preference order, these were developing a leadership role, assessment and thinking skills. This differed from the training priorities highlighted in school development plans of literacy, numeracy and leadership-based courses.

4. Factors that contribute to teachers not pursuing CPD

Teachers’ primary reasons for not pursuing CPD were their workload followed by family/personal reasons. For teachers who described themselves as very interested in pursuing CPD, funding was seen as the most significant barrier.

5. Teachers’ level of interest in pursuing accredited CPD

The most common additional factors in choosing not to pursue accredited CPD were being close to retirement, and having already completed accredited CPD.

Six themes emerged from the interviews:

1. Support provided by the institution

Almost all interviewees could identify a key person in the organisation responsible for the organisation of CPD. Teachers in a leadership position consistently saw encouraging participation in CPD as a key aspect of their role. There was evidence from several interviews that training is linked to the teachers’ performance management targets and the school’s development plan and that their CPD needs were reviewed systematically.

2. Interviewees’ understanding of CPD systems

A significant emergent theme was that teachers, particularly in the middle stages of their career, were not aware of a clear PD structure in relation to funding and opportunities for participation. NQTs, although familiar with induction, were unclear how their CPD needs would be met as their career progressed. Teachers reported spending long periods of time trawling the internet for information about relevant accredited CPD opportunities, and there was some confusion among interviewees regarding routes to Masters-level qualifications.

3. Funding

This was an issue that almost all interviewees focused on during the interviews. Many described the end of GTCW funding as having a negative effect on prospects for CPD. Very few teachers, apart from senior leaders, were aware of sources of funding other than GTCW but many were aware that this source of funding had ended. All but one of the interviewees reported that they were being provided with CPD opportunities. Interviewees emphasised that courses were often expensive and needed to be relevant to their
training needs. One head teacher described ways in which their school attempts to fund CPD more cost effectively, for example by sharing the cost of accredited training with teachers, working in consortia, cascading training information and developing individuals through shadowing roles and responsibilities.

4. Workload and work-life balance

The conflict several interviewees felt at having to choose between attending to the needs of their family and personal life and participation in CPD was a recurrent theme. Almost half the interviewees felt they needed to protect weekends for family/recreation reasons, while others felt it was ineffective to work later in the day or in the evening. A majority of interviewees liked the idea of participating in distance learning as it would provide greater flexibility.

5. Leadership training

Leadership training was seen to be a high priority but there was no strong evidence that teachers see accredited CPD as an essential part of training provision. A few saw gaining a Masters qualification as important in helping them progress to leadership roles or developing their effectiveness as teachers. Some stated that they would like to develop their skills for their current leadership role, for which they had not had any formal training.

6. Welsh language provision

Most of those interviewed through the medium of English preferred delivery of CPD through the medium of English, while the Welsh-medium interviewees included those who felt Welsh-medium provision was essential, those who preferred Welsh-medium provision and those who felt bilingual courses should be available. One interviewee felt that there should be flexibility of provision to provide for the differing needs of participants with differing competences in Welsh.

Outcomes of project

Overall the findings from this study are in line with the international literature. This gives us some confidence that where findings specific to the current Welsh context have emerged, they can be regarded as valid and reliable.

Fewer than 25% of teachers responding to the questionnaire said that they would be willing to travel more than 30 miles to attend CPD. This has implications for some HEIs in Wales (notably Aberystwyth University, Bangor University and the University of Wales Trinity St David) that are situated in fairly rural areas with a relatively small population within a 30-mile radius. These HEIs should consider whether more CPD courses could be offered in locations more convenient to a larger number of teachers.

Enhancing provision of CPD through the medium of Welsh is clearly an important issue for HEIs in Wales, who might profitably collaborate (perhaps through UCET Cymru) to enable greater access to Welsh-medium provision.

Some interviewees were very concerned about issues of workload and work-life balance, and it would be worth investigating further if these teachers share particular characteristics, such as being carers for children or elderly parents.

Schools in Wales are generally supportive of teachers undertaking CPD and that there are structures in place to audit PD needs. Thus the climate for CPD in Wales is in some ways relatively positive, but availability of funding and heavy workloads are significant barriers to participation. Senior leaders in some sense act as gatekeepers to information about CPD and HEIs should further develop their communication links with senior leaders at schools to encourage participation in accredited PD.
There was a lack of awareness among teachers of what accredited CPD provision was available. There was evidence that, even when teachers were highly motivated to participate, information about courses was not easily accessible. There was a lack of understanding about the structures leading to Masters-level qualifications. It would appear that whatever the methods used by HEIs to distribute information, these are ineffective.

**Summary of implications for HEIs and policy makers**

The key issues for HEIs offering CPD for teachers, as identified in this study appear to be flexibility of provision and awareness of PD opportunities at accredited level. Training also needs to be directly relevant to teachers’ current concerns and national priorities, and give them the opportunity to collaborate with colleagues to address these across schools or within their own school/classroom. PD needs to be flexible with regard to timing, location and language of delivery, and keep pace with curriculum and policy developments. HEIs need to work with senior managers in schools and colleges on planning CPD, as well as taking account of individual teachers’ professional development needs and interests. HEI administrators need to provide validation and accreditation systems that are able to respond flexibly and rapidly to the changing needs of teachers, while maintaining quality.

Workload and lack of funding were identified as significant barriers to participation in CPD, especially for those with additional responsibilities within or outside school. Further research is needed to identify whether particular groups (such as those with caring responsibilities) are disadvantaged by a system that requires teachers to fund their own training not only financially, but also in relation to time. Early stage teachers were aware of the funding available to them and also that further funds would cease following the end of statutory EPD due to the end of the GTCW’s CPD funding. The evidence from the literature suggests that effective CPD involves teachers working collaboratively both within and between schools.

Policy makers need to consider how effective CPD can be made accessible to all teachers, without personal sacrifice.

**Impact of project**

The findings from the study will be presented to the CPD committee of UCET Cymru and discussed in the relevant committee of the School of Education at Bangor University. An article will be submitted for publication. Taking part in the project has contributed to the PD of the research team.

**Bibliography**


B. Departmental

Teaching for the real world: creating materials for experiential learning – the law in action

Cardiff University (Learning and Teaching Enhancement Fund Project) – Dr Bernadette Rainey

Keywords: experiential learning; Law; employability; citizenship; advocacy.

Introduction and overview

Skills-based learning not only provides an important employability tool for students but also encourages a ‘deep’ approach to learning (as part of the experiential learning cycle (Kolb, 1984). It has been noted that in the area of human rights, which is similar and influences the practice of asylum law, the learning experience should be “participatory … and empowering” (UNESCO, 1993) and as teachers, we should be engaging learners to think about putting theory into practice (Williams, 2002). This type of learning also encourages ‘citizenship’ values (see Welsh Assembly Government, 2002).

Cardiff and Swansea Law Schools have existing pro bono schemes in the respective law schools. For example, in Cardiff Law School, pro bono schemes such as the ‘innocence project’ provide students with the opportunity to work alongside practitioners on cases of those claiming a miscarriage of justice. The student liaises with the practitioner and the client, examines case files, writes briefs and several cases have been passed to the Criminal Cases Review Commission for review. Student feedback has underlined the value students attach to such schemes, both in increasing awareness of values and citizenship and in enhancing employability skills.

However, places on this scheme and other law schools’ schemes are severely limited. It is necessary to attempt to expand the schemes to give as many students as possible the opportunity to be a part of a skills-based learning activity. Asylum is an area where there is a dearth of advocates and advisers for asylum seekers. It is also an area where students will come into contact with a diverse range of clients. The impetus for devising a training programme for asylum law was threefold: the need to expand the pro bono scheme; the benefits of the training programme as it will provide the student with accreditation as an adviser in specified area of law; and an interest from stakeholders such as Asylum Justice, the organisation that will collaborate to provide the students with placements, etc. The Welsh Government has also been encouraging law schools to get involved in this area.

Generation of evidence

The teaching materials and outline of the programme were written by an experienced practitioner in consultation with Cardiff Law School. The materials are based on the knowledge, understanding and skills required for the accredited schemes (OISC guidelines from the Home Office). The materials will be distributed in a pack and the students will give feedback on the training course and placements.

Outcomes and impact of project

The training materials that are being collated have implications for practice for students, academics, sector organisations and employers.

Students: as noted, the training scheme provides invaluable experiential learning. It enhances the employability skills noted above and it also enhances the student experience of diverse communities. This provides students with the added benefit of witnessing the law in action and the impact of legal work on society. It should also improve the general learning experience of the Law degree.
Academics: the facilitating of a training programme enhances the skills of the academics involved. By reflecting on the programme and receiving student feedback, academics can improve the learning experience. It is also beneficial for an academic involved in the programme to have contact with stakeholder groups, which could lead to collaboration in other areas of research and practice.

Sector organisations: stakeholder such as Asylum Justice benefit greatly from such a scheme as they gain enthusiastic and trained volunteers who may carry on volunteering when they go into professional practice.

Employers: the training programme provides students with the employability skills, which employers in the legal profession are looking for such as practical experience of case work, advocacy skills, working with clients, etc. The training programme is quite specific to the provision of legal education; however, other disciplinary areas use work placement schemes where the student may need some form of accreditation or training. The provision of a training programme for a large body of students may be a better way to ensure students get the greatest benefit from work placements rather than expect employers to provide training or have ad hoc help for students.

The project will have a positive impact on the employability of the students and the improvement of the learning experience for the degree in general. It has a societal impact as the project will provide volunteers for an organisation working with vulnerable and diverse communities. It is difficult to evidence this at this stage, but student feedback and feedback from the voluntary organisation should provide evidence in the near future.

Links

Office of the Immigration Services Commissioner:  
http://oisc.homeoffice.gov.uk/

Bibliography


6. Responding to the diverse student profile (international, part-time, mature, work-based learning, etc.)

A. Institution-wide

Adult student engagement in Wales: who is engaging with whom?

Swansea University (seminar) – Dr Paul Ransome, Professor Colin Trotman and Dr Lynne Jenkins

Introduction and overview

Focusing on the experience of adult learners in a specialist Department of Continuing Adult Education (DACE) at Swansea University, the seminar contributes to current debates on student engagement and student experience by problematising the notion of ‘student engagement’. We ask whether the practice of student engagement has tended to become a monitoring and surveillance activity for the benefit of the institution, rather than focusing on a renewal of pedagogic practice. Referring to Welsh Government policy on enhancing widening access and adult learning (for example, For Our Future (DCELLS, 2009) and the Corporate Strategy 2010-11), the presentation began by emphasising the critical importance of engaging with adult learners, often through part-time modes of study, as a way of challenging social disadvantage and promoting social and economic renewal. The second part offered a critical appraisal of the difference between ‘operative student engagement’, which reflects the needs of the institution for monitoring and surveillance procedures, and ‘qualitative student engagement’, which focuses on the pedagogic process. It was suggested that the quality approach provides insights that could usefully be adopted across the institution. The presentation concluded with an overview of how, through its community-based programmes and broad spectrum of courses, DACE achieves ‘first contact’ with adult learners.

We ask whether, on the basis of long-standing practical experience of engaging with adult learners, the concept and practice of student engagement as typically used today has tended to be sidelined into a monitoring and surveillance activity for the benefit of the institution, rather than encouraging a genuinely positive and energetic renewal of pedagogic practice in HE. We explore how the experience of engaging with adult learners provides insights into ‘best practice’ for understanding student engagement and the student experience that could be applied across the institution.

Generation of evidence

Using an action research perspective, our research evidence takes the form of practical experience of addressing the challenges of engaging with adult learners, of providing them with attractive modes of entry/re-entry into education in South West Wales, and of addressing their particular needs (Trotman et al., 2010). We also draw on an ongoing evaluation study of adult learners’ opinions about engagement in learning opportunities (Jenkins et al., 2006). In the same way that adult learners differ from full-time undergraduates in their modes of entry and their modes of study (flexible/part-time modes enabling them to return to study while also fulfilling employment and family responsibilities), they also offer potential employers a wider range of skills and employment-related experiences. The concepts of student engagement and student experience are reviewed using the concept of ‘qualitative pedagogy’ (Ransome, 2008; 2011a). The seminar included an open forum discussion, which drew on new data collected via a ‘seminar worksheet’ completed by those attending the seminar.
Through the seminar worksheet, which was circulated to those attending ahead of the seminar, the seminar produced valuable new data from participants themselves on the experience of engaging with adult learners in FE and in HE. To the extent that the 12 completed worksheets can be regarded as not untypical of current experiences of student engagement in South West Wales, the following two summary points are worth recording. First, communication between all those involved in the learning process is highlighted as an important means of improving student engagement. This helps ensure that staff and students have the same expectations and aspirations about their learning activities. Experience suggests that students will disengage if they become uncertain what the expected learning outcomes of the process are. Communication also increases the chances that students feel that they can have some say over how the learning process develops. Second, although indicative information on student engagement can be gathered by looking at data on attendance, progression, retention and assessment outcomes, it is important not to disregard ‘soft outcomes’. Student engagement is not only about ‘results’ as measured, for example, by ‘pass rates’ for formal assessments, but this kind of ‘objective’ information can provide some indication of the level and quality of student engagement that is taking place. One explanation of poor student performance, either on particular modules or programmes or across the institution, could be low levels of commitment among students and staff to engaging positively with the learning process. The solution, however, is more engagement not more monitoring. There are limits to how far student engagement can be improved simply by increasing levels of formal monitoring.

Outcomes and emerging themes from project

Welsh Government policy on higher education places strong emphasis on the crucial importance of education as a lever for social and economic renewal. Engaging positively with adult learners, whose previous experience of formal education is likely to have been less than ideal, is an essential response to these policy objectives. In the context of adult education, ‘engagement’ means offering programmes of study that are genuinely accessible. Community-based programmes using part-time modes of study offer a positive and authentic means of engaging adult learners in South West Wales. Having made contact with adult learners, however, and having developed programmes of study to reflect the range of abilities and backgrounds that adult learners offer, it is imperative that HE and FE institutions maintain a clear focus on the learning process rather than being distracted by monitoring and surveillance activities, which may have limited pedagogic value. If institutions really do want to improve the student experience, this requires a qualitative approach to engagement and learning, rather than monitoring and surveillance for the benefit of the administration.

The following themes have emerged from this research:

- Positive student engagement is seen within institutions as being an important determinant of a high quality student experience. The relationship between engagement and experience, however, is not clearly understood and requires further study.
- There are also outstanding issues surrounding the question of the levels at which the surveillance and monitoring of modules and programmes has positive benefits in improving levels of student engagement. The law of diminishing returns suggests that a point is likely to be reached where intrusive monitoring diverts resources away from efforts to improve student engagement. There are likely to be limits to how much substantive improvement can be achieved simply by increasing levels of formal monitoring. It is important not to confuse means with ends.
- Student engagement, especially in the context of adult learners studying part-time through community venues, requires an understanding of the sometimes complex ‘learning trajectories’ of these students (Ransome, 2011b). Awareness of onward expectations in relation to employment, for example, is an important facet of student engagement.
Bibliography


Supporting tomorrow’s managers: enhancing employability skills in an M level curriculum

University of Wales, Newport (seminar) – Dr Jo Smedley

Introduction and overview

This seminar highlighted the methodology and lessons learned from a two-year project to develop and enhance student employability skills within a learning curriculum for full- and part-time Masters UK and international students. These student-focused developments are part of the employer engagement and employability initiatives in Newport Business School at the University of Wales, Newport.

External market research of employer needs identified opportunities in the current learning curriculum provision for employability-focused developments using flexible learning approaches and involving traditional and modern technologies. These learning curriculum developments included two extra-curricular modules created with a vocational background in mind. The first module ('Managing Knowledge') supports the refinement of academic and employability skills at M level at the commencement of formal academic learning. The second module ('Managing Professional Practice') provides students with preparatory skills and insights of the world of work in different sectors. The information gained from these two extra-curricular modules prepares the students to engage with company-based internships or University-hosted, employer-led projects. This experience of the world of work is designed to encourage students to demonstrate the application of academic learning to real-world projects in their dissertation.

The five aims of this project were as follows:

- enhance communication on employability skills development in the learning curriculum;
- understand employer needs of employability skills;
- review and refine employability skills development through the learning curriculum;
- support participants in employability skills development;
- review and refine quality procedures in employability skills development.

The objectives of the seminar were to:

- discuss employer-focused market research;
- enable discussion on case study examples of employability skills development in learners;
- provide opportunities for those involved in employability skills development to link together to discuss potential collaborative opportunities.

Generation of evidence

Research scope

The market research included the following groups of respondents in England and Wales:

- employers, e.g. local employers to the South West Wales area, national employers;
- organisations and learning agencies, e.g. Sector Skills Councils, national organisations, Chambers of Commerce, Confederation of Business and Industry.

Involvement in the market research

- HR directors with training and staff development responsibilities in larger corporations;
- managing director, a board member or business proprietor of SME;
- those with responsibility for skills evaluation, skills development or a person with an overview of business education requirements in learning agencies.
**Approach overview**
This research involved a dual-staged design to target the groups with both qualitative and quantitative methods to explore these issues. The business survey adopted a semi-structured approach with a high volume of open-ended as well as closed-coded questions.

**Approach detail**
- online focus groups: with learning agencies and organisations;
- telephone surveys: 100 interviews across local and national businesses;
- reporting: with our conclusion and recommendations.

**Fieldwork**
1. Learning agencies and organisations: online focus groups
   Online focus groups were undertaken with learning agencies and organisations to encourage a good debate and link parties together – often difficult where potential respondents are widely dispersed geographically. Ten to fifteen individuals with an interest and role within the project scope were invited to join the group. They were selected for their particular input knowledge or perceptions, which informed the agenda. Invitation was by telephone with a weblink to log into on designated days. The group ran over two days with different questions presented on each of the days. A topic guide was developed that covered all the issues debated within the group. A group moderator guided the debate and questioned respondents about views they presented. The group interactions were captured as a conversation, downloaded and analysed for the final presentation.

2. Business survey
   A telephone survey of 100 businesses was undertaken enabling a great deal of information to be gathered in a relatively short period of time. Due to familiarity, the telephone generates minimal negative impact on data quality. Most importantly, this approach gives the opportunity to ask questions that are open ended as well as closed or rated. The telephone enabled the collection of both qualitative and quantitative data from customers and non-customers alike. Quotas were established representing key areas of interest related to locality, business size and business sector. The questionnaire contained a considerable number of open-ended questions allowing free comment on the issues surrounding current challenges. This provided valuable insight of how these affected staff development and training, usage of existing programmes and contributed to identifying unmet needs.

**Research findings**

The workplace skills required from future employees, based on this market research, are outlined in the chart below.
In response, an extra-curricular Level 7 module entitled ‘Managing Knowledge’ was designed and developed in Newport Business School. This was initially implemented for UK and international students on the full-time and part-time MBA programmes during Semester 1 of each teaching programme. Subsequently, it was accessed by students from three M-level programmes. The module teaching team involves academic and learning support staff from several cross-University areas. The blended learning nature of the content enables flexible access – particularly important for time-pressured, part-time learners. Module information was provided through the University learning environment with weekly updates supported by discussion forums to encourage continuous reflection outside the sessions.

**Outcomes of project**

Implications for policy and practice for different stakeholder groups are outlined below:

- **Academics**: With increased emphasis on assuring a relevant and accessible curriculum with appropriate learning approaches, intra-curriculum initiatives need to directly engage with employability through employer involvement in student learning and work-related assessments. The balance and emphasis will vary depending on the subject being studied and its association with professional expectations and professional, statutory and regulatory bodies. The development of extra-curricular employability initiatives offers additional opportunities for students to hone their employability skills prior to graduation and engagement with the world of work.

- **Learning technology practitioners**: To enable flexible access, employability-focused developments involve the creative use of modern technologies to enable students to be familiar and confident with the use of various modern technologies to enhance their business communication. This enables them to access their learning information and contribute examples of their learning in action using a variety of technological approaches. Although technological skills development is often embedded within the generic modular curriculum, further specific modular content may be required to fully provide the knowledge required. In addition, an extra-curricular approach to prepare students for their employability experiences will provide additional opportunities to enhance their confidence and skills in the use of technologies for learning.

- **Professional developers**: Reflecting approaches in an employment-focused ‘world’, professional developers play a vital role in linking universities with external clients, e.g. small, medium and large employers accommodating their various different engagement needs. Working alongside learning technology practitioners, they ensure that learning technology boundaries continue develop to reflect and accommodate voluntary, private and public sector needs and aspirations.

- **Senior managers**: Creative and responsive approaches to proposing and promoting employability at strategic levels along with encouragement, resources and support to implement intra- and extra-curricular initiatives.
and flexible learning approaches is key to moving forward such initiatives. Inter-cultural teamwork involving academic staff, learning support staff and employers provides insight and experience of a range of thinking and experiences to guide developments. An iterative implementation approach ensures that lessons learned contribute to continuing developments.

- **Policy makers:** With emphases on employability and continuing professional development, the continuing involvement of employers and academic and learning support staff working together to provide a greater range of contextualised experiences and opportunities for learners. Stakeholder needs are also an important aspect of this process to ensure that all partners gain benefits from involvement and working together. This partnership approach is vital for sustainability and effective sharing of practice.

- **Students:** An employability-focused curriculum needs to involve a mix of face-to-face and modern technologies providing greater opportunity for access by a wider range of learners. As part of this, it is important that students have appropriate skills and confidence to engage effectively with their learning. Additionally, entrepreneurial thinking is an important elements so that students feel empowered by their learning and are able to apply their academic learning to solve real-world, professional challenges.

- **Sector organisations:** A curriculum with an employability emphasis provides private and public sector organisations opportunities to link with the University in a range of developments, for example, continuing professional development training, project developments, research. In particular, this initiative has encouraged private and public sector organisations to be involved with the delivery of the modular curriculum and build closer links with staff and students, encouraging further mutually beneficial developments.

- **Employers:** A partnership approach ensures the effective communication of the curriculum content across any cultural ‘bridge’ between academia and the world of work. As part of this, it is crucial that all developments provide mutual benefits for all concerned. These may be of different types, but must have value to each individual partner to assure the continuity of the relationship. With effective communication, initial involvement with an employer in one area often leads to further links on a variety of other projects.

- **Professional bodies:** Extra-curricular employability initiatives provide opportunities for professional body accreditation giving additional ‘currency’ to the student learning experience. A mix of academic and professional qualifications indicates their ability to apply their academic learning to work-based situations and raises their employability profile.

**Bibliography**


Adopting learning through employment elements into existing HE programmes

University of Glamorgan (seminar) – Peter Green and Dr Karen Fitzgibbon

Introduction and overview

The main aims and objectives of this seminar were to disseminate and share evidence-based practice in relation to learning through employment, to explore methods of engagement with existing module content and to provide an opportunity for critical discussion in relation to these innovative developments and the student experience.

In Wales the Welsh Assembly Government’s strategy paper For our Future requires higher education institutions to provide opportunities for learners in the workplace to recognise their learning and experience through the use of innovative solutions to accredit work-based learning. The University of Glamorgan has developed a Learning Through Employment (LTE) framework through which employees, employers and academic staff can work together to recognise such learning in a credit-bearing structure. The LTE framework has achieved institutional approval through quality assurance validation and is now being promoted with a wide range of academic staff within all the University disciplines. As a result of the validation, the LTE team, based in the Centre for Excellence in Learning and Teaching, sought to promote the framework and engage employers and fellow academics from other HEIs in a discussion and critique of this approach.

Generation of evidence

The LTE framework was developed by CELT in consultation with the University Heads of Learning and Teaching. The framework evolved through various discussions including representation from the University’s Centre for Lifelong Learning, European Office and Commercial Services. These discussions led to the creation of seven skeleton module descriptors, which are populated with content in negotiations between the University, employers and learners. The seminar also offered the opportunity to view several posters prepared by academic colleagues who have engaged with the LTE framework.

Seminar findings

Feedback from participants in the discussion sessions proved very valuable and provided a useful critique of the LTE framework and approach being undertaken at Glamorgan. The feedback provided will enable the review of the LTE framework and toolkits before they are used as vehicles for the forthcoming Change Academy into Learning in Employment. Comments included observations about ensuring validity of the work produced in a ‘learning through employment’ context, concerns about the infrastructure in relation to academic years and whether this lends itself to a flexible roll-on roll-off learning pattern, and the need for careful management of learner, employer and academic staff expectations. A further consideration is the fee structure around WBL/LTE/APEL.
Outcomes of seminar

The discussions led to recognition of a pivotal point for learners engaging with the LTE framework. This was that learners will need to be aware that they are not receiving credit for being at work, but that they are required to engage in critical evaluative thinking about their learning while in employment. The discussion also focused on the need for creative models of learner support for those who have not previously entered higher education, or have not studied for a number of years. The University will be taking the evaluation of the LTE framework provided by participants as well as the feedback about the learner experience and learner support into the new Change Academy LTE project. The CA LTE project team includes representation from a local employer, which will enable the University team to understand the contexts within which learners will be operating. In comparison, the employer representative will offer a different perspective to University staff about higher education policy and practice.
Assisting academic staff in creating an appropriate learning environment for work-based learners

Cardiff University (Learning and Teaching Enhancement Fund Project) – Dr Peter Theobald

Keywords: work-based learning; vocational qualification; distance learning; programme framework.

Introduction and overview

The Leitch Review (2006), a report commissioned to influence UK Governmental policy, recently recommended an increase in students attaining qualifications of Level 4 (i.e. first-year degree level) and above. This approximately equates to a 29% increase in current numbers to achieve the 2020 target. Additionally, emphasis has recently been placed on an increase in the ‘economically valuable skills’ that graduates gain through their degree programmes (Leitch, 2006; Gray, 2001).

The main aims and objectives of this seminar were to disseminate and share evidence-based practice in relation to learning through employment, to explore methods of engagement with existing module content and to provide an opportunity for critical discussion in relation to these innovative developments and the student experience.

It has previously been reported that the higher education sector generally, and the engineering and technology sectors specifically, lack both the capacity and incentive to recruit from markets other than the traditional ‘young’ entrants. Any other format for higher education (HE) is deemed to be less stable, and thus represent an inherently greater risk. Given the recent, significant changes in the HE sector, however, universities are now faced with an expected decline in applicant numbers and hence a need to reconsider improving the flexibility of their learning provisions.

Such an expansion of WBL provision is not easy, however, as highlighted by a recent survey of continuing professional development (CPD) courses offered by the HE sector to the science, technology, engineering and maths (STEM) markets (Etb, 2004). Such provision was reported to be patchy, often difficult to access due to a lack of information about services available, was not customer-focused, and was typically too reliant on ‘off the job’ delivery (Etb, 2004). Hence, significant challenges await those HEIs aspiring to develop WBL provisions.

Existing evidence

The Leitch Review (2006) provided a timely report on the economic growth of the United Kingdom. In doing so, however, it also highlighted three key factors (all from the engineering sector) that may prove to be important drivers in overcoming the apparent HEI WBL reluctance:

- the fundamentally weak skills base within the UK, which was deemed to be stunting growth and productivity;
- the rapid increase in the quality and volume of education within some countries deemed to represent industrial competitors;
- the predicted shortfall in UK skills versus competitors come 2020.

In an attempt to improve the UK’s position with respect to the above problems, the report recommended a step change in the provision of learning and skills development (Leitch, 2006). The Engineering Council UK (now the Engineering Council) responded by identifying the need for a greater number of engineers to achieve Chartered Engineer status, the inference of which would enable a relative upskilling of the UK workforce given that this is an internationally recognised standard.
Project findings and outcomes

As with developing any new WBL programme, it is important that the graduates are acquiring knowledge that is relevant to their likely sector. Given the closer links between the HEI and the employers for WBL programmes, successfully achieving this aim is of greater importance. Bigg’s popular strategy of ‘constructive alignment’ is ideal for ensuring consistency between the teaching materials and the intended learning.

The knowledge gleaned from this study has been used to inform the development of a new WBL MSc Programme at Cardiff School of Engineering, in Professional Engineering. This programme is now presented as a case study, to provide readers with an example of how the pedagogical theory can be applied in a practical situation. It is not intended for this case study to serve as a ‘gold standard’, merely as a tool for assisting colleagues in a similar situation.

The concept of MSc Professional Engineering has been developed by the Engineering Council in response to a recent report highlighting the need for a greater number of professional engineers. The Engineering Council has since developed the concept of a new, work-based pathway for engineers to achieve both the academic and professional competencies required to become a Chartered Engineer. This pathway has been termed the MSc ‘Professional Engineering’.

Five HEIs currently offer MSc Professional Engineering. Interestingly, most have opted to deliver the programme, at least in part, through the ‘learning at work’ format with this, in some instances, being supplemented by enrolment on to existing, full-time undergraduate modules. As of September 2011, the Cardiff School of Engineering (CSE, Cardiff University) will become the sixth HEI to offer the programme, following a rigorous three-year developmental and internal validation process. This case study describes how this author, who was Lead Developer (and now Programme Director) of CSE MSc Professional Engineering, developed the Cardiff version of this programme.

Cardiff School of Engineering’s new MSc Professional Engineering will be delivered through the ‘learning at work’ format. Two key principles guided this decision:

- Given that CSE already has successful ‘learning for work’ programmes, then potential benefits could be gleaned from developing a new framework that supported a broad engineering programme.
- CSE already has experience delivering WBL programmes in this format; however, these are targeted at very niche sectors (i.e. Clinical Engineering and Orthopaedic Engineering) and hence there is a requirement of a new, transferrable framework.

A root-and-branch review of the existing CSE WBL programmes identified that the learners found the delivery format beneficial from both an academic and social perspective, overcoming some of the above reported fears. Subsequently, MSc Professional Engineering will also comprise some campus-based lectures, timetabled during four weekends per year, for two years. The 180 credits will be divided as follows:

- Stage 1 (120 credits): The taught component of the programme will include eight different modules (15 credits), four of which will be delivered in Year A, and the remainder in Year B. Subsequently, with the exception of a few key modules, a rolling syllabus will operate, given that none of the modules are linked.
- Stage 2 (60 credits): The dissertation phase will provide learners with the opportunity to collaborate with specific staff to solve a work-related problem.

The programme content has been constructively aligned to UK-SPEC. Subsequently, the study weekends deliver knowledge that is focused on achieving specific professional competencies. Providing a broad foundation, the learners are then required to seek a deeper knowledge in areas that are aligned to their working environment. They are then expected to demonstrate how this new knowledge has enabled them to provide a solution to a work-related problem.
The weekend structure provides a focal point for all learners to share ideas and resolve problems, in a similar manner to the Centre for Outcome-Based Education (COBE)'s online conference. Indeed, e-communities will also be established to ensure that learners remain engaged with each other during their time away from the university.

Impact of project

It is hoped that this study provides information for colleagues that may assist in developments of new WBL programmes. It is intended that colleagues gain value from observing the process undertaken at Cardiff to introduce a new programme, which has an underpinning framework based upon the earlier review of the pedagogical literature. Hopefully, this approach positions the programme in such a way as to be of suitable relevance to the industrial community, while meeting the rigorous standards of the institution. It is acknowledged, however, that this process is continually being revised as we strive towards even greater levels of efficiency and quality.

Links

In addition to the sources provided below, the website of the new MSc Professional Engineering may provide readers with additional information:
http://www.cardiff.ac.uk/engin/currentstudents/courseinformation/index.html

Bibliography


B. Departmental

Routes to employment for unemployed graduates

Cardiff University (Learning and Teaching Enhancement Fund Project) – Huw Thomas

Keywords: employability; internships; placements; reflection.

Introduction and overview

Improving graduate employability is an increasingly important policy objective in higher education and among professional bodies. Individual attributes (particularly so-called ‘soft’ and transferable skills) are known to be important components of employability. There is evidence that workplace experience can improve these. However, how much improvement can be gained during short workplace experience is less certain. This has a bearing on whether it is worthwhile for already hard-pressed organisations such as universities and professional institutes (and also employers) to devote time and/or money to organising schemes providing short internships.

This question is especially acute when considering appropriate experience and support for graduates who have failed to achieve employment in their chosen career some time after graduation. These will generally be graduates who have underdeveloped employability, and who will already have been exposed to the (often considerable) advice provided on a routine basis by most universities. In the case of these graduates, the potential of short placements in enhancing employability appears at least questionable. This project sought to address that question, and establish whether there were circumstances in which short placements could help improve graduate employability.

Generation of evidence

Graduates seeking internships completed an application form. There were also three rounds of semi-structured interviews with both interns and employers: pre-internship, mid-internship, and post-internship.

The pre-internship interviews with interns had three main purposes: 1) exploring what the intern was seeking from an internship, in the light of their background, including job-search experiences, aspirations and existing skills; 2) discussing with the intern the significance of reflecting upon the experience gained in the internship as it happened (for example, at the end of each day’s work); 3) identifying whether there were gaps in knowledge or information that were hampering the employability of the intern – for example, most were unaware of the concept of soft skills, and found it a useful notion to help make evaluate their employability.

Pre-internship interviews with employers sought information on the employer’s expectations of the internship, how the internship would be organised and managed, and whether there was a day-by-day plan for the internship. It was also an opportunity to remind the employer that while internships should provide benefits to employers, the welfare and development of the intern had to be central to the internship.

Pre-internship interviews were interactive: they were opportunities to gather data, but also to shape the behaviour and expectations of both interns and employers.

Mid-internship interviews with interns and employers were focused on asking if all was going as each party expected it to, and if not, agreeing a plan of action to rectify matters.

Post-internship interviews of both interns and employers focused on their evaluation of the internship’s value in improving employability, and their evaluation of the experience, from their own perspective.
**Project findings**

Overall, the scheme was well-received by employers and interns; they believe it should continue, albeit with minor modifications.

- The scheme appears to have increased employability of graduates.
- Central to increasing employability appear to be improvements in skills and knowledge across the board (hard, soft and transferable) and – crucially – increasing reflection by individual interns on how to improve their employability as well as improving their basic job-hunting skills.
- This latter development requires regular and quite intensive interaction between the intern and an external party/critical friend (in this case, the researcher).
- Hard skills were acquired because each internship contained one major piece of work.
- Work programmes need to be agreed by intern and employer prior to the internship being finalised. An external ‘honest broker’ is probably needed in this process to ensure the intern’s needs are adequately recognised.

**Outcomes of project**

Detailed guidelines were drawn up providing advice for organisers, employers and interns involved in short internship schemes. These are applicable in any disciplinary/professional area. Key recommendations were:

- All involved must appreciate that the employer’s central consideration in the internship must be the intern’s development. A well-planned internship helps interns develop through doing useful work for the employer.
- Work programmes need to be agreed by intern and employer prior to the internship being finalised. For very short internships this needs to be broken down into daily tasks. An external ‘honest broker’ is probably needed in this process to ensure the intern’s needs are adequately recognised.
- Once the internship starts, at the end of every day – e.g. when on the way home – the intern should reflect on what she/he has done today, what kinds of skills or knowledge have been learned or used, and how these relate (or don’t) to what she/he wants to get out of the internship.
- At the end of the internship the employer should give the intern concrete feedback about what they think are their strengths and weaknesses, as an employee in this field, based on their work during the internship.

The following three points account for the impact of this project:

- One intern secured employment shortly after the internship, and cited the development of skills during the internship as significant.
- The professional institute involved (Royal Town Planning Institute) and the University are keen to continue the scheme in Wales. In addition, there are plans to replicate it in regions of England, with the professional institute taking the lead.
- The guidance note will be published in the magazine of RTPI Cymru.

**Links**

A paper evaluating the project, and the guidelines for organisers, employers and interns are available at: [http://www.cardiff.ac.uk/cplan/contactsandpeople/stafflist/s-z/thomas-huw-dr-project.html](http://www.cardiff.ac.uk/cplan/contactsandpeople/stafflist/s-z/thomas-huw-dr-project.html).

A paper based on the evaluation was delivered at ASET’s annual conference, September 2011. The presentation is available at: [http://www.asetonline.org/](http://www.asetonline.org/).
Bibliography


Ensuring appropriate assessment of work-based learners

Cardiff University (Learning and Teaching Enhancement Fund Project) – Dr Michael D Jones

Keywords: assessment; work-based learning; postgraduate training; distance learning.

Introduction and overview

School of Engineering (CSE) of Cardiff University currently delivers two part-time MSc programmes, Clinical Engineering and Orthopaedic Engineering, to professionals currently employed within the healthcare sector. These programmes are the only two delivered in a non-conventional format within the School and hence are extremely important in achieving Cardiff University’s stated aim of widening access. Both programmes have run for approximately 15 years and are recognised as containing elements of work-based-learning (WBL).

The MSc in Orthopaedic Engineering (circa 75 students p.a.) has been developed to provide orthopaedic surgeons with the requisite engineering knowledge to permit its evaluation, interpretation and application to everyday surgical practice. It is also closely aligned to the engineering requirements for the examination for qualification to Fellow of the Royal College of Surgeons. Participants range from newly qualified doctors, who are Members of the Royal College of Surgeons, to consultant grade Fellows of the Royal College of Surgeons. Typically, participants undertake the course to facilitate career advancement, practical improvement or the pursuance of an academic career.

The MSc in Clinical Engineering (circa 18 students p.a.) has similar aims, though provides for a more diverse clinical engineering profession, including, for example, clinical and rehabilitation engineers. The Clinical Engineering MSc has been designed to satisfy the educational requirements of the Institute of Physics and Engineering in Medicine (IPEM), sanctioned by the Engineering Council, to provide the academic element for eventual Chartered Engineer (CEng) qualification. Participants range between those with little formal academic qualifications, but a significant workplace experience, to newly qualified graduates, whose first degrees may include an engineering discipline. An essential prerequisite, however, is that they must be employed within a healthcare-related sector, which can include the NHS, private medicine, the military and industry. The majority of participants, however, undertake the course to assist in career advancement.

Despite a long and successful history, neither programme has been subjected to a review or scrutiny of the current assessments in an effort to determine whether they are ‘fit for purpose’; that is, that they satisfy the course/customer requirements and/or reflect advances in pedagogy. There are many academic authors who espouse the benefits that WBL offers, such as flexibility and adaptability that are considered “superior to an equivalent, traditional qualification” (Medhat, 2008).

The imminent introduction of a third programme (MSc Professional Engineering), which has a considerable WBL requirement has prompted this review of current practices across a further two MSc programmes to determine whether the current methods of assessment provide sufficient opportunity for candidates to effectively demonstrate WBL. Since, the assessment of work-based learning has been described as “arguably one of the biggest challenges facing cooperative education practitioners worldwide” (Lester and Costley, 2010).

Generation of evidence

A study was conducted of teaching and learning assessment methods from module descriptions, coursework submissions, examination scripts and MSc dissertation submissions. Further, opinions were sought from relevant HE providers to gain an appreciation of the pedagogy that underpins their current postgraduate training assessment provision.
Project findings

A review of the teaching and learning assessment methods currently practised on the MSc Orthopaedic and MSc Clinical Engineering courses was conducted at Cardiff School of Engineering (CSE). CSE module descriptions, coursework submissions, examination scripts and MSc dissertation submissions were scrutinised to determine the relative exploitation of WBL and WBL assessment. Of the taught element assessment, WBL activities constitute 25% of Orthopaedic Engineering and 33% of Clinical Engineering. When taught and research elements were considered jointly, WBL constituted approximately 50% of Orthopaedic Engineering assessments and 56% of Clinical Engineering assessments. Opinions were sought from HE providers to gain an appreciation of current attitudes to WBL and WBL assessment. External (NHS) professional providers were generally familiar with WBL and comfortable with its provision, though, expressed concerns about the academic ‘fit’ of assessments. Academic providers were generally reluctant to engage in WBL provision, citing a perceived lack of assessor expertise, training and time, combined with a perceived lack of academic rigour.

In conclusion, consultation with HE providers indicated that with regard to WBL assessment, both external providers and Engineering academic providers require guidance as to what is expected of a university-based Masters-level programme.

Outcomes of project

Cardiff University has stated aims of widening access to higher education and providing assistance in driving Welsh economic growth from within the HE sector. The three current part-time MScs (MSc Orthopaedic Engineering, MSc Clinical Engineering and MSc Professional Engineering) contribute to addressing these stated aims. WBL has the potential to ‘add value’, thus it is vitally important that the HE sector fully exploit its potential. To maximise the potential of WBL, it is important that the course structure embraces a tripartite approach between the academics, the employers and the participants. What level of WBL activity, i.e. what percentage of the course should be dedicated to WBL, needs to be determined on a course-by-course basis. However, what appears to be clear is that whatever the level of WBL activity, it must be assessed appropriately by informed and engaged providers. Overall the two reviewed courses constituted approximately 50% relevant academic assessment and 50% work-based applied assessment.

Assessment in Cardiff University is broadly governed by the Cardiff University Assessment Strategy (CUAS), which ensures that assessment be valid, reliable and explicit. Thus the following WBL assessment recommendations, in addition to being aligned to a module’s stated learning outcomes, must comply with the principles of the CUAS.

Taught elements of the MSc courses

Following consultation with MSc part-time distance learning providers at Cardiff School of Engineering, with regard to the taught element of the courses, it was established that external (NHS) professional providers were generally engaged, ‘familiar’ and ‘comfortable’ with its provision. However, concerns were expressed about the academic ‘fit’ of assessments and guidance was requested about the nature and form of the assessments.
Since the external providers deliver the only taught WBL modules, which are assessed by examination and coursework, it must be acknowledged that appropriate guidance should be considered an essential prerequisite, this is to be addressed as a matter of urgency. This would appear obvious, however, since they had not previously been asked, the magnitude of the problem could not have been fully anticipated. From the perspective of WBL provision therefore, the external providers are an extremely valuable resource, since they provide an effective WBL programme, an appropriate mechanism of delivery and assessment, and they are ideally placed to provide it.

As mentioned above, Engineering academic providers were generally reluctant to engage in WBL provision, citing a perceived lack of assessor expertise, training and time, combined with a perceived lack of academic rigour. While appropriate resourcing could address all of these concerns, it is perhaps a ‘strength’ of the courses that those, the external providers, with an obvious WBL background and a logical justification to provide it, continue to do so; while the Engineering academic providers deliver, in depth, current and future concepts with the perceived academic rigour of examinations and coursework, which they are expert at delivering.

Research element of the MSc

Consultation with MSc part-time distance learning providers established that external (NHS) professional providers were generally ‘anxious’ about the research process and not familiar with the particular requirements of an MSc degree, or a degree from the host institution. When participants undertake the research element of the MSc they are assigned an internal Engineering academic supervisor, who oversees the research and assessment process. This is reflected in the opinions of the external providers, who expressed that they were generally happy to rely on the academic staff to provide the appropriate level of WBL supervision and guidance/assistance during the assessment process. It is, however, important that the external staff be encouraged to fully engage in the research process, since the experience of the participant can only be improved by an informed external provider/contributor. The process of external provider participation has typically occurred by a process of evolution rather than revolution; however, expressions of feelings such as anxiety indicate that CSE need to undertake a more proactive and inclusive programme with respect to external provider training/involvement.

Engineering academic providers were generally of the opinion that they were able to supervise WBL research projects across a wide range of topics, often having supervised WBL research projects, and generally believing that they were supervising the research process rather in addition to the specific WBL project. It was also generally believed that the time period over which a project was conducted provided the Engineering academic supervisor with sufficient time/opportunity to gain the necessary understanding of the WBL context/environment.

Impact of project

It is intended that this study will provide information to assist in the future development of new and existing WBL assessments. It is intended that colleagues gain value from observing the experiences at Cardiff to improve delivery of WBL assessment ensuring that all the HE providers are sufficiently engaged. Hopefully, this study is of relevance to each of the other parties, i.e. the employers and the participants, while balancing the rigorous standards/requirements of the host HE institution. It is acknowledged, however, that this process is one requiring continual revision as one strives towards even greater levels of relevance and quality.
Bibliography


7. Supporting learning and teaching in HE through the medium of Welsh

A. Institution-wide

App Iechyd Da

Cardiff University (Learning and Teaching Enhancement Fund Project) – Dr Gwilym Wyn Roberts

Keywords: Welsh language in healthcare practice; Welsh/English translations/terminology; Welsh Government health policies; healthcare education in Wales; equal opportunities.

Introduction and overview

The ‘App Iechyd Da’ has been developed to highlight the importance of Welsh language awareness for all healthcare students undertaking pre-registration qualification in Wales. One key intended outcome is for healthcare students to maximise on its content and use as part of their ongoing academic and clinical studies at all levels and across a variety of programmes. This current educational resource will develop a better respect and understanding of the value attached to the use of the Welsh language in healthcare education and practice in Wales. Once developed, the App Iechyd Da will be a free downloadable resource for any student studying any aspect of Healthcare within Wales, and beyond. A significant number of students with access to iPhones and iPads will be able to access useful and current information relating to all aspects of the Welsh Language within higher education and health and social care practice within Wales.

Although the main focus of the app will relate specifically to the use of and the increased profile of the Welsh language when used in healthcare, there will also be a focus on Wales’s specific policies and procedures especially those relating to healthcare education within the higher education sector. The app will be used as an important learning resource including as a tool to provide basic Welsh phrases for students to apply when out on clinical placements.

The need for all healthcare students across all higher education institutions across Wales to be aware and to respect the significance of the Welsh language in the public sector is well documented. The communication skills of healthcare professionals play an important role in the relationship and subsequent treatment of patients. Professionals and students need to be aware of patients’ unique cultural and linguistic background and the Welsh Government (2011) outlines its duty to support and promote the Welsh language. New proposals regarding the provision of services through the medium of the Welsh language are being developed, and the newly passed Welsh Language (Wales) Measure 2011 will set out standards that healthcare practitioners and providers will have to comply with. Individual Welsh language policies are in use throughout Wales and policies such as the Welsh Government’s laith Pawb (2003), Gofal Cymru and LLAIS aim to revitalise and encourage the use of Welsh language and increase awareness of language opportunities and barriers within health and social care.

Generation of evidence

A health forum was created in Cardiff University, to look strategically at the provision of Welsh-medium education across Wales. An all-Wales health forum was held in January with Swansea University, the University of Glamorgan, Cardiff Metropolitan University (UWIC) and Bangor University all taking part. This forum inspired the development of the app, and will be very useful to get the message across Wales about the app.
The resource, in an appropriate online form, will be available on Y Porth, the Welsh-medium eLearning platform, as an open resource. This means that all staff and students registered on Y Porth will be able to have access to the App Iechyd Da.

In addition, evaluation of Occupational Therapy students at Cardiff University highlighted the need to increase awareness of the importance of the Welsh language among healthcare students, in particular while completing clinical/practice education areas in Wales. From the increased interest among some students to complete aspects of their studies through the medium of Welsh, aspects of the app content have been developed in partnership between academic staff and students.

**Project outcomes**

As the funding has been used to develop the app it is intended that a thorough evaluation will be undertaken during the 2011-12 academic year. It is intended that the app will be applicable and a valuable resource to all healthcare students in Wales, and possibly beyond. In addition, clinicians who undertake formal supervision of healthcare students in Wales will also be able to access the app and therefore increase awareness across all the health and social care sector. Such awareness will increase the quality of supervising students while on clinical/practice placements across all sectors in Wales. Part of the app has been developed as a glossary of terms in English and Welsh. This has been developed to support those students who may undertake research projects and other written assignments through the medium of Welsh. Such a glossary and translation tool will be useful for those assessors/markers who will mark the assignments. It is the intention to develop this further to include some profession specific clinical terms.

The initial development of the app has already been welcomed by the Welsh Government and various service managers across Wales. A clear marketing strategy is in place in order that information pertaining to the app can be distributed and promoted to all current healthcare students, the 2011-12 intake and all service providers, service users, the voluntary sector and all organisations involved in higher education, health and social care. Once developed this useful app has the potential to be developed and adapted across a number of other subject areas and organisations.

**Links**


Gofal Cymru Leading Innovation and Quality in Mental Health Services: [http://www.cobwebs.uk.net/gofalcymru](http://www.cobwebs.uk.net/gofalcymru)


**Bibliography**


8. Widening access, retention and progression

A. Institution-wide

Does it do what it says on the tin? The effectiveness of foundation courses as measured by students’ progression and reflections

Cardiff Metropolitan University (UWIC) (Learning and Teaching Enhancement Fund Project) – Lalage Sanders, Annette Daly and Katherine Regan

Keywords: foundation courses; transition into higher education; student engagement; student expectations; preparation for degree.

Introduction and overview

This impetus for this study was derived from two of the current drivers that influence higher education in the UK: student retention and widening access (Rhodes and Nevill, 2004; Wilcox et al., 2005). In order to better respond to these two drivers, some universities now provide Foundation courses for those without the formal entry qualifications for degree-level study. The number of universities in the UK, or indeed in Wales, offering such courses is uncertain, nonetheless they are increasingly popular as part of the widening participation agenda. The aim of such courses is to prepare the student for degree-level study, equipping them with the necessary skills, improving their confidence in their identity as learners and providing them with a taste of what is to come. For these reasons Foundation courses are designed to tackle many of the issues that influence retention at degree level. However, as yet, little is known about their effectiveness in meeting these objectives.

This study was undertaken as part of programme of research evaluating the impact of Foundation courses on students. This phase of the study focused on Foundation students who had progressed to degree-level study and were in Level 4 of higher education.

Generation of evidence

As part of a larger project focusing on two HEIs who offer Foundation courses, we collected both qualitative and quantitative data. We trawled the UCAS sites to survey how many Foundation courses are currently listed there and how these are presented to UCAS applicants.

We undertook a series of focus groups with Foundation graduates from one of four courses across the two universities, as they were approaching the end of their first year of degree-level study. Sixteen students took part in these groups (five male) including some mature students. The agenda for these groups comprised reviewing their experience of their Foundation course – what was and what was not useful about it – and the extent to which they felt it had prepared them for their current studies. These focus groups were supplemented by an electronic survey sent to other ex-Foundation students.

We also collected data from Level 4 examining boards for those degree courses onto which these four Foundation courses fed. This allowed us to measure how ex-Foundation students were performing in comparison to their peers who had not had the opportunity of taking a Foundation course.
Project findings

Survey

The UCAS database was searched for Foundation courses beginning in 2011 and this produced a list of 819 courses offered by a total of 106 different institutions. However, this included foundation degrees which are a different type of provision (usually two years long and designed and delivered in partnership with employers to equip people with the relevant knowledge and skills for business). Once these 92 courses were deleted from the findings, the remaining 727 courses could be categorised as Foundation courses.

It was notable that the descriptors used for these courses showed little consistency and indeed comprised 60 different descriptions of the qualifications to which the courses lead. These descriptions varied in the given length of the course, and the type of award to which they lead both in level and in nature. Some descriptors referred simply to the Foundation year; 12 identified the courses as a one-year, full-time course, with a further two stipulating that the courses were two years full-time. Other descriptors included the whole study period including for the degree onto which they lead; thus 27 descriptors identified their courses as four years duration, ten as five years and four as six years. Irrespective of the period of study specified in the descriptor, many, but not all, incorporated the type of award for the final degree (e.g. BSc Hons). This lack of consistency was perplexing for those of us familiar with the exigencies of higher education; it must be bewildering for new applicants.

Perceptions of the Foundation course

The qualitative data from the focus groups and questionnaires reflected predominantly positive views of the Foundation courses. They were said to offer a different kind of educational experience from previous courses undertaken; the workload was considered to be heavy but generally appropriate. Many reported a high level of support available on the course, and some commented that the subsequent drop in support at Level 4 was a shock. Several referred to it as a “stepping stone” or “gateway” into higher education. The courses were seen to have been specifically geared to the intended degree courses and to have provided not only detailed information about those degrees but also a chance to get to know the university before making the greater commitment to degree level study: “a toe in the water”. It helped “to ease you into the first few weeks of university”. Some suggested that with hindsight the Foundation course had been worth the money: “more pros than cons”; others commented that this would be less certain if the fees were £9,000 a year.

The useful aspects of the courses included the drop-in sessions, small class sizes (compared to Level 4), filling the gaps in knowledge that would be needed at Level 4 and becoming acclimatised to university resources. Gaining feedback during the course meant learning about academic levels, what was required and how the individual student was performing: “what lecturers look for when marking”. Knowing the teachers, the resources and the environment boosted confidence, “makes you feel more settled” during Level 4. The courses were seen to have provided specific subject knowledge, but also to have helped developed independent learning. Academic skills had been enhanced by the experience: “literature searching”, “referencing” and “essay writing”. Participants acknowledged the social support they had received through being part of a “community” of Foundation students. There was also an acknowledgement that motivation to succeed was variable across the course and a suggestion was made that in “the light of limited places, it may be a waste to allocate places to students who do not have the appropriate motivation to engage”.

Less useful was the delivery of Maths during the Foundation year; its relevance was not made clear and some found they did not need it once they were on their degree after all. Furthermore some suggested that other skills had been underplayed during the Foundation year, including referencing. Other topics cited as missing from Foundation courses, included reflective skills, which were seen as “essential to academic university level work”. Preparation for independent work and report writing were also cited as needing greater emphasis. There were some negative comments on individual teaching styles and individual timetabling glitches, indicating an impatience for such administrative problems.
There was a lack of consensus about the extent to which the courses had prepared them for Level 4. Again, the notion of being on familiar ground at the start of the degree course was cited as helpful, as was feeling confident in the choice of course, and the awareness of what was expected of them. More negative comments were made when there was a perceived mismatch between the course content at Foundation and at Level 4. Paradoxically others suggested that there was a repetition in some areas: “starting from scratch in topics we have covered before makes people less willing to attend these lectures”.

It was noted that a compulsory attendance requirement on some modules had adverse consequences: “class disruption” and “apathy”. Some noted that there was potential negative side to the community of students: “it is very easy not to attend if your friends don’t”. Indeed, the issue of motivation recurred, throughout the data cited, as a prerequisite for success. There was also an indication that perceived lack of motivation among their peers was a source of irritation for some participants. When asked to identify who would not benefit from undertaking a Foundation course three groups were cited: those who were only “topping up their UCAS points”, those looking for “something to do after A-levels” and those who come through clearing as for these people it was not a considered choice.

Two other related themes that emerged from the data were the notion of developing a student identity and of building confidence – both are themes that we have identified as significant among Foundation students too (Sanders et al. in preparation). Participants indicated that developing confidence in their own academic ability was important to them and part of developing their own student identity. They cited positive aspects of the course as being crucial to building this, helping them gain confidence in their writing skills, in asking for help when they needed it and in dealing with the demands of the university. Closely associated with this was the development of a student identity aided by “being in a university environment”. This identity was threatened if they “didn’t feel as important as other courses” and were “not taken seriously”. To combat this, they suggested that the staff who teach on these courses “should be chosen carefully” and they resented it when it felt as if “staff were chosen because of availability as opposed to appropriateness to the course”. This issue of selection of teaching staff and academic staff views of Foundation courses is one that requires further investigation.

**Academic performance**

Finally, the outcome from the Level 4 examining boards this Summer for three of the four courses was analysed. (For the fourth course, the smallest with an annual intake of less than 20, it has proven impossible to obtain a full dataset for the respective Level 4 courses within the timescale, partly because although the Foundation course is small, it feeds onto the largest number of degree courses than any of the other three Foundation courses.) A data file just shy of 900 cases was compiled of which 117 were Foundation graduates. Level 4 marks are significantly different for discipline areas and by degree courses, but are not affected by student type – that is to say, there is no significant difference between the marks achieved by Foundation graduates and those achieved by their peers on the Level 4 courses.

**Outcomes of project**

**Survey**

The survey of Foundation courses advertised on UCAS suggests that as a sector we need to standardise the nomenclature and terminology of these courses in the interests of simplicity and clarification. To this end the Foundation Year Network emailing list will be contacted in order to generate a debate about how such standardisation could best be achieved.
Perceptions

Students completing Level 4 after a Foundation course provided an overall positive view of their route and are potential advocates for such courses. The contradictory nature of some of the comments about the content of Foundation courses reflects the challenge inherent in its curriculum design. As most Foundation courses feed onto more than one degree, it would seem wise to have some tutorial work in groups identified by their choice of course for the following year. If the curriculum includes material that is not going to be required in future study years, then a clear rationale for its inclusion should be made readily apparent to all.

Performance

The analysis of the quantitative data is reassuring as it shows that those students who graduate from a Foundation course achieve a comparable performance in Level 4 assessments with that of standard-entry students. This appears to justify the deployment of Foundation courses as a means of providing an auspicious start for candidates who would not otherwise be granted a place at university. These data are taken only from Level 4 examining boards; it would be useful to follow the cohort through their degree courses to ascertain whether this comparability with standard-entry students is maintained.

Impact of project

Locally

The impact of these findings will have an effect on the future evolution of the Foundation courses in both participating institutions. The presentation of modules will be modified to ensure that the rationale for the module content is made explicit at the start and throughout the delivery of the course. The programme teams will identify ways of regularly seeking the views of Foundation graduates in order to ensure appropriate curriculum development. The possibility of establishing study groups that are based on the future chosen course will be considered. Reiterating the comparability performance data to Foundation students will help increase their confidence and provide reassurance for their chosen course of action.

Nationally

These findings will be disseminated through publication in an appropriate peer review journal (e.g. Studies in Higher Education) for broader discussion across the sector. The findings will also be presented at the Foundation Year Network Annual Conference for a discussion among colleagues involved specifically in this type of delivery. We will also apply to present a paper at the 2012 HEA Annual Conference to allow wider dissemination.

Bibliography


These are some further references that have influenced the project as a whole:


