



Learning Innovation Network *Newsletter*

ACADEMIC PROFESSIONAL DEVELOPMENT (APD)

In December 2008, the Academic Professional Development subgroup continued the design and development of the agreed new programmes for 2009. It was a very busy month for all of us and we were very fortunate to get Dr. David Baume to facilitate a day long workshop (held on the 17th December in the Dublin Institute of Technology) on designing curriculum for academic staff development.

Dr. Baume is a leading specialist in the design of academic development programmes in the UK and has worked with SEDA (Staff and Educational Developers Association) on the development of its programmes.

Dr. Baume's very interactive workshop on the 17th December was preceded by a two day workshop organised by EDIN (The Educational Developers in Ireland Network) on Curriculum Design. Thus, by the time Dr. Baume arrived, all of the participants were very keen to get down to the business of designing the new modules.

One of the interesting outputs of this workshop was the definition of the professional values and competencies of a third level lecturer/teacher and the translation of these values into concrete programme/module learning outcomes.

This was a very challenging but worthwhile exercise for all of those involved.

Now that the overall framework for the development of the Academic Development Programmes has been underpinned by a set of agreed values and competencies, the subgroup is ready to move onto the design phase of the programme development.

On the 30th of January, Professor Tom Boyle, Director of the Learning Technology Research Institute (LTRI) in London Metropolitan University, will facilitate a workshop for the subgroup on the development of reusable learning objects (RLOs) which will be used to support the delivery of the new programmes.

If you would like further information about these modules please do not hesitate to contact Dr. Noel Fitzpatrick (noel.fitzpatrick@dit.ie)

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LIN PORTAL

The LIN portal will have the following features;

- Linkages to every IoT
- Search
- Content will be organized into tabs with every IoT having their own tab containing institute specific content e.g. DKIT will have information specifically relating to Dundalk Institute of Technology i.e. staff news, workshops etc.
- In addition to tabs containing content related to each IoT, there will also be tabs containing teaching and learning related content e.g. assessment, e-learning etc.
- Content will mostly be based on RSS feeds. RSS (Rich Site Summary) is a format for delivering regularly changing web content. Many news-related sites, weblogs and other online publishers' syndicate their content as an RSS feed to whoever wants it. RSS feeds allow users to easily stay informed by retrieving the latest content from the sites in which they are interested. The beauty of RSS feeds is that they enable the users to save time by not needing to visit each site individually
- Under each tab, information will be structured into small moveable windows called widgets. A widget can be an RSS aggregator. An aggregator allows the user to grab the RSS feeds from various sites and display them for reading. As an example, a widget (entitled Irish News) can be set up to receive irishtimes.com RSS feeds. The best thing about using RSS feeds is that the content is continuously updated
- Whilst users will be able to easily create new widgets, the infrastructure will also contain pre-defined widgets (which the user can select if he/she wishes) such as google news, document storage, to do list, calendar, mail etc.
- The tabs will be easily customisable by the user (i.e. edit/move/rename/delete/add)
- The user will also be able to change the look and feel of the portal
- In addition to the front page for the LIN portal, users will also have both a private and a public space. Both can be customised and shared with others
- Once the front page for the portal has been customised by the user, the settings are automatically saved for subsequent visits

If you would like to have further information about the portal, please do not hesitate to contact Dr. Attracta Brennan (attracta.brennan@gmit.ie)

LIN TEACHING AWARDS

Angelo and Cross contend that “the quality of student learning is directly, although not exclusively related to the quality of teaching. Therefore, one of the most promising ways to improve learning is to improve teaching (Angelo and Cross, ‘Classroom Assessment Techniques’, Josey Bass, 1993). This raises the question, what are the criteria for excellence in teaching?

Thompson et. al. in their paper “Developing an institutional framework for rewarding excellence in teaching: a case study” (Quality Assurance in Education, 1998, Volume: 6, Issue: 2, Page: 97 – 105)” argue that excellent teaching is teaching which supports the students in achieving high quality learning. They contend that excellent teachers thus need a range of skills to help them become effective managers of the student learning process. Excellent teachers would need to be able to: use a range of learning and assessment methods; work effectively with their peers and help their students become effective learners (ibid).

Whilst the establishment of criteria for teaching excellence has proven controversial; establishing acceptable measures or evidence of teaching excellence has raised yet even more complaints (Peters, John, ‘Can Identifying and Rewarding Excellent Teaching Improve Student Learning?’, Educational Development, 9, 1, Feb. 2006).

Regarding the views of academic staff on teaching awards extant in their institutions, results from the sectoral Teaching and Learning Survey of 2008, showed that,

- Respondents in general demonstrated a lack of awareness of extant awards in their own institution
- From a total of 737 respondents, only 10 individuals indicated that they had ever applied for a teaching award. This low level of application is commensurate with findings from research (Jackson, Michael, ‘Great classroom teaching and more’, International Journal of Educational Management, Volume 20, number 4, pp. 261-267, 2006). The indicated reasons for this lack of staff participation in awards schemes range from the modesty of academic staff in self-promotion, the time required for application preparation and the lack of clarity of the manner in which the selection process is made
- The survey found that whilst the experience of those individuals who had applied for teaching awards was valuable from both an intrinsic (i.e. the satisfaction of preparing an application and in some cases the receipt of the award) and an extrinsic (i.e. the recognition from colleagues and peers) perspective, others indicated that the application process was too time consuming, certain steps irrelevant and the procedure complex

- A number of respondents indicated fears regarding the complexity of a fair judgment of the teaching process from an inter and intra institutional and an inter and intra disciplinary perspective. "Many Institutes will have an unfair advantage over others i.e. funding, basic facilities. Also different cognitive fields require various methods of teaching/learning." Bowden also questioned whether or not it was "possible to define the work of faculty in ways that reflect more realistically the full range of academic and civic mandates? (Randall G. Bowden, 'Scholarship Reconsidered', Journal of the Scholarship of Teaching and Learning, Volume 7, number 2, pp. 1 – 21, October 2007)".



RECOMMENDED READ

"Introduction to Rubrics: An Assessment Tool to Save Grading Time, Convey Effective Feedback and Promote Student Learning" by Danielle D. Stevens and Antonia J. Levi

Recommended by Attracta Brennan

Rubrics are both a tool and a method for communicating expectations. Academic staff need to use rubrics, because they tell students how they will be graded on an assignment. Because they define all of this up front, rubrics make a lecturer's job of grading assignments much easier. Plus, they give students the guidance they need in order to complete the assignment. This book defines what rubrics are, and how to construct and use them. It provides a complete introduction for anyone starting out, to integrate rubrics in their teaching.

WE NEED YOUR HELP!

We would love to hear of your own personal experiences resulting from your involvement in teaching and learning initiatives and/or projects. Please send any comments/insights/anecdotes/stories to mary.fox@gmit.ie. We will send a flash drive to the author of those experiences we publish.

We would also appreciate it, if you would send us recommendations for books related to teaching and learning which you found especially insightful and helpful in addition to any recommendations for useful teaching and learning urls (papers, tools, videos, blogs etc.).

FOR YOUR DIARY

LIN

30th January - Dublin

Developing Blended Learning Modules – by Prof. Tom Boyle, Director of the Centre for Excellence for the Design, Development and Use of Learning Objects, London Metropolitan University

Contact Mary Fox (mary.fox@gmit.ie) to confirm your place at this workshop. Attendance is free but places are limited.

W: <http://www.lin-ireland.com/index.php?title=Workshops>

OTHER

22nd January – University of Ulster, Belfast

7th Annual eLearning Conference - Supporting the iGeneration.

W: <http://www.campusone.ulster.ac.uk/elearn2009/>

LIN PICKS

LIN picks for this month's issue include;

IBERRY – THE ACADEMIC PORTHOLE

Free access to Higher Education (HE) Resources and Open Courseware (OCW) from the Universities and Colleges of the world. Site also contains the latest HE and educational technology newsfeeds and blogs.

W : <http://iberry.com/>

DELIBERATIONS ON TEACHING AND LEARNING IN HIGHER EDUCATION

Content includes extracts of published articles in learning and teaching, case studies on teaching and learning, articles contributed by readers, comments and discussion between participants on learning and teaching issues, links to related resources and relevant publishers and much more.

W: <http://www.londonmet.ac.uk/deliberations/>



'EYE' on GMIT

RESEARCH UPDATE IN HERITAGE STUDIES AT GMIT

Following a HETAC panel visit, GMIT was recently given the go ahead to run Ph.D.s in the area of Heritage Studies. GMIT Masters graduate, John Towler, has become the first registered Ph.D. student and is presently pursuing a study of Galway city's transformation during the course of seventeenth century.

At Masters level, Charlene Bloe – who has previously worked as a festival organiser – has commenced research on an M.A. thesis entitled 'The Potential of Developing New Themed Festivals for Galway's Off-Peak Tourism Season'. Her work is being funded by the Technological Sector Research Strand 1 Postgraduate R&D Skills Programme. Both of the above projects are being supervised by Heritage Studies lecturer, Dr. Mark McCarthy and conducted under the auspices of the 'Irish Heritage, Culture and Arts' research group, based in the School of Humanities. Meanwhile, the results of a previous project (funded by GMIT's Internal Research Fund) on genealogy tourism have just been published in Volume 18 of the Polish tourism journal *Turysm*, by Marta Gergelyova, Mark McCarthy and Monica Nielsen. Mark McCarthy himself is currently engaged in the writing of a book dealing with the 1916 Rising and modern memory. Finally, the urban development of Loughrea is the focus of a study being conducted by Heritage Studies lecturer, [Paul Gosling](#) (as part of the Royal Irish Academy's Irish Historic Towns Atlas). For further details, contact [Dr. Mark McCarthy](#).



Engineers face many hurdles when developing novel medical devices. However, the final hurdle; understanding how the patient and the device work together; is often the most challenging. Traditionally, the product developer relied on fairly rudimentary anatomical models in the test laboratory in order to increase confidence that the new device would be likely to perform effectively in the human body. Testing in the lab would then be followed by a clinical trial on a large number of patients to confirm that the device was indeed safe and effective. Unfortunately, cases have been cited where; although anatomical models indicated that the new device would perform well in humans, problems arose in the clinical trials; problems which forced the trial to be halted and the device to be redesigned.

John Kelly, the Director of the Galway Medical Technologies Centre (GMedTech), has extensive experience in leading product development activities for several of Ireland's most prominent medical device companies. During his time with these companies, he recognised the need for more reliable anatomical models.

Funded by Enterprise Ireland, GMedTech (www.gmedtech.ie) was established in 2006 to offer a broad range of engineering design/development support services to the developers of medical devices. GMedTech is also involved in research, specifically focusing on the development of in vitro simulation test systems (that closely mimic human anatomical systems) in order to serve the needs of medical device companies and medical practitioners.

Device companies located in the West of Ireland became the first target 'market' for the GMedTech Centre. As the majority of these companies developed and manufactured devices for the treatment of vascular diseases, the GMedTech centre initially developed simulation models of the vasculature. These models are currently being used by product development engineers from several device companies, to test devices for the treatment of aortic aneurysms; coronary artery disease and cranial aneurysms. The feedback from the users of these simulation systems has been that the GMedTech systems more faithfully replicate the human anatomy than other systems which the product developers had utilised in the past.

John Kelly explained that the GMedTech researchers go to great lengths to ensure that the models better mimic the nuances of the human anatomy. "We use MRI & CT scans to understand the topography of the anatomy. We have identified materials that closely match the properties of the vessels being modelled and we source materials that closely mimic blood; as well as developing pump systems to push the 'blood' through the vessels in a realistic fashion" he said. The Centre uses materials such as silicone and polyvinylalcohol, materials with which the GMedTech researchers have become expert in handling.

GMedTech researchers work as a tightly focused team. "There are three engineers, seven post grads, and myself in the team" said John. As well as considerable experience in the development of test systems, the team also has a wealth of experience in medical device design. Probably because of this mix of experiences, the Centre staff are increasingly finding that they are being asked to aid device companies in designing out product issues that have been identified through the process of testing the new devices on the simulation systems developed by the Centre".

Further information on the GMedTech Centre can be obtained by contacting:

Mr. John Kelly, Centre Director, GMedTech
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'EYE' on GMIT



Established in 2005, the SHELLTEC Applied Research Centre conducts multi-disciplinary research on the condition and responses of crustaceans and molluscs to manmade and natural stressors. The main research themes of the centre explore:

- 1) Post-capture handling, storage and transport stresses in live shellfish marketing chains, and the development of new technologies to reduce their impacts;
- 2) Development of environmental monitoring techniques and protocols for novel contaminants in the aquatic environment using shellfish as markers (marine and freshwater);
- 3) Shellfish pathogens and parasites in the wild and captivity, and ways in which management can prevent or reduce associated impacts.

The means by which these themes are explored range from simple, standard laboratory tests to the discovery/elucidation of novel protein biomarkers. The ultimate goal of the Centre is to conduct highly applied research that has a positive impact on industry, society and/or the environment health, and in doing so promotes sustainable regional development. Staff at the Centre continually interact with stakeholders and development agencies to ensure that the most effective and suitable, maximized added value technologies and methodologies are evolved through a process that is supported by robust, peer-reviewed applied research output. Through these interactions the Centre aims to be highly responsive and reactive in identifying core knowledge gaps and the research pathways to obtaining solutions.

The success of the centre to date has recently been acknowledged by the addition of further laboratories to the centre (proteomics, cell culture, microbiology and mass spectrometry) and capital equipment including Q-PCR, 2DE electrophoresis optimizer, DIGE gel bio-imaging system and a Q-TOF mass spectrometer for *de novo* sequencing, post-translation modification and the profiling of biomarkers. The resources at the Centre are available for collaborative projects with applied/commercialization researchers from all HEI's (www.shelltec.ie).

For further details contact martin.robinson@gmit.ie.

CISET : CENTRE FOR THE INTEGRATION OF SUSTAINABLE ENERGY TECHNOLOGIES

As sub-zero degree Celsius temperatures persists and oil prices rebound upwards it is comforting to know that over 20 academic/technical staff and postgraduate researchers within GMIT's Centre for the Integration of Sustainable Energy Technologies (CiSET) are working to deliver low-cost, reliable and sustainable energy technologies for the future. Supported by the Institutes' 'Build Environment' strategic research theme, CiSET's mission is to 'minimise CO2 emissions through the research, integration and demonstration of cost effective and reliable sustainable energy technologies'.

CiSET explores sustainable technologies that encompass energy demand and supply for a range of applications that include the build environment (domestic and commercial) and other industrial applications, such as agriculture and aquaculture. CiSET recognises the need for improved system design to minimise the overall energy requirement and new technologies and methodologies to integrate the sustainable solution more effectively.

CiSET continues to build its research and demonstration infrastructure and by summer 2009 it will operate the following sustainable energy (demand and supply side) technologies:

- i) automated weather station
- ii) four-zone thermally insulated underfloor heating system
- iii) air-to-air and compost waste-to-air heat recovery systems
- iv) five different thermal energy storage (water, ground and phase change material) facilities
- v) energy management and control system (aquaculture recirculation facility)
- vi) two biomass boilers
- vii) two 15kW ground-source and two air-source (5kW and 8kW) heat pumps
- viii) four small scale (2.5kW – 15kW) wind turbines
- ix) six solar photo-voltaic collector panels
- x) twelve solar thermal (flat plate and evacuated tube) collectors.

These systems will be supported by data acquisition systems that enable continuous performance monitoring. CiSET researchers are pleased to provide further details of these facilities or indeed discuss future projects with potential industrial or academic collaborators.

Dr. John Lohan (john.lohan@gmit.ie), Dr. Thomas Roche (tom.roche@gmit.ie), Dr. PJ McAllen (pj.mcallen@gmit.ie), Dr. Oliver Mulryan (oliver.mulryan@gmit.ie).

Centre for the Integration of Sustainable Energy Technologies.



'EYE' on GMIT

GMIT PRESENTS SCHOLARSHIPS TO TWELVE FIRST YEAR STUDENTS

Galway-Mayo Institute of Technology (GMIT) presented twelve scholarships to first year students from counties Galway and Mayo, under its new Access Scholarship Programme.

The twelve scholarships comprise a substantial monetary component and supports for the duration of the student's programme of study. They were presented to the students at a reception in GMIT recently hosted by GMIT President Marion Coy and attended by career guidance teachers from the students' respective secondary schools.

GMIT Registrar Bernard O'Hara says: "The Institute is delighted, thanks to a private donor, to provide special Access scholarships this year. The geographical spread of the winners ranges from Belmullet to Oranmore and from Carna to Ballygar. We wish the students well in their endeavours and thank all the secondary schools for their work on the students' behalf."



GMIT President Marion Coy at the recent presentation of scholarships to twelve first year students of the Institute.

GMIT OFFERS NEW IRISH DEGREE IN OFFICE INFORMATION SYSTEMS AND ADMINISTRATION

The School of Business at Galway-Mayo Institute of Technology (GMIT) has launched a new BA degree in gCórais Faisnéise agus Riaracháin Oifige (Office Information Systems and Administration).

The new three-year programme will provide graduates with excellent written and oral skills, as Gaeilge, for management and administrative roles in a modern office environment. The course has a high information technology component and will also have a compulsory work placement in second and third year. All lectures will be delivered through the medium of Irish.

Larry Elwood, Head of the School of Business, GMIT, says: "The School's decision to offer this programme arose directly as a result of the drive initiated by the Higher Education Authority (HEA) in 2006 to increase the supply of graduates with specific Irish Language capabilities. Funding has been provided by the HEA to provide the course which has an anticipated intake of twenty students."

"Given the status of Irish as an official EU language and the requirements being placed upon public bodies by the Languages Act, the need for graduates who can conduct business through the medium of Irish combined with an in-depth knowledge of the modern office and business environment, is likely to grow over the coming years."

For further details contact larry.elwood@gmit.ie

STUDENT LEADERSHIP (SIF II PROJECT)

GMIT is the lead institute implementing a major SIF II project on Student Leadership. The project was allocated over €2m in funding by the HEA last March. However, this amount was considerably reduced in the amount received for the first year of the project.

Student Leadership consists of two strands: 'Student Led Learning' in collaboration with Athlone Institute of Technology and 'Curriculum Reform' in collaboration with NUI, Galway.

Strand One: Student Led Learning (AIT partner)

This strand is centred on students' engagement in their learning, their impact on the change agenda of the participating institutes and their longer-term leadership role.

Strand Two: Curriculum Reform (NUIG partner)

This strand aims to design a model for continuous curriculum development at institutional, programme and module level. This collaboration between GMIT and NUI, Galway will focus on the practical aspects of the implementation of Bologna and the National Qualifications Framework (NQF) in the two institutions. The collaborators have different experiences and emphases to date and the focus will be on curricular reform and the related quality imperatives. Joint peer review of activities and learning from other sectoral partners will be an inherent part of the strand.



'EYE' on GMIT

GMIT LETTERFRACK – BSC (HONS) IN DESIGN AND TECHNOLOGY EDUCATION

Modularisation is a key strategic objective of GMIT and this project enables the institute to continue this transformation.

Progress to-date

Progress to-date has been impressive considering the project only began proper in October. This is attributed to the management structure, making a number of key appointments to the project and good working relations with our partners.

Considerable effort has been invested in setting up and piloting the PAL project with Athlone Institute. This programme will be piloted this term in four individual courses in each institute. Both students and staff are very excited about this new innovation. Following evaluation of the pilot PAL will be mainstreamed to all programmes commencing in September 2009. Further information on PAL is available on the AIT and GMIT websites (www.gmit.ie/pal).

GMIT developed and approved a common institute module called Learning to Learn (L2L) and this will be mandatory for all first years starting in Sept. '09. This module is quite novel as only the learning outcomes are prescribed in the module descriptor, allowing each discipline area to contextualize the delivery and content. The key rationale for the module is to ease the transition from second to third level.

An assessment seminar and workshops was held in December on innovative assessment methodologies which was very well attended and received positive evaluations. A staff development day to support the student leadership curriculum initiatives is scheduled for mid-February and is open to the partner institutions.

Progress is ongoing in relation to the introduction of an IT system to store, monitor and track changes to modules. This is important from a QA perspective but equally from a student engagement perspective it allows informed choice to be made in relation to electives for existing students and programme selection for prospective students. It also affords staff the opportunity to design new pathways to awards by having access to the complete module descriptors.

Planning has already started with NUIG on hosting a major conference in June on 'Curriculum in Higher Education and Assessment.' Progress is only possible with the support of staff and management. Fortunately this project is strongly supported by all stakeholders and will continue to achieve it's objectives as a consequence.

The Galway-Mayo Institute of Technology's courses in Letterfrack are run in partnership with Connemara West (a community and rural development organisation based in North-West Connemara). Since 1987, the partnership has managed and run programmes related to all aspects of the furniture industry. Currently the college has 234 full time students. GMIT Letterfrack is a very unique campus in the third level sector. Nestled in the heart of north-west Connemara the college has developed over the past 20 years into an internationally recognised educational centre of excellence for furniture technology, manufacture, design and conservation.

Programmes at GMIT Letterfrack have been designed and developed in response to the ever changing needs of the Irish furniture industry and all programmes include professional work placements as part of the programme syllabi. In 2006 however, this campus embraced a new discipline and launched a 4 year ab-initio programme entitled Bachelor of Science (Honours) in Design and Technology Education. This programme educates students to become teachers in the fields of post-primary technological subjects. It was developed in response to a demand for improvements in the confidence and ability of the current graduates to demonstrate the required knowledge, skills and competence to teach these particular subjects. The programme modules and syllabi have been designed to reflect the changes taking place in those subjects at second level, particularly in Design and Communication Graphics which now has a greater emphasis on design, sketching and computer modelling.

The first intake of students on the programme was in September 2006 and this group will graduate in October 2010. The programme incorporates intensive skills building in first year and education modules are introduced in the second and subsequent years. Students undertake micro teaching and undergo an 'Observation' week in second year, while two teaching practice blocks take place in the third and final year of the programme.

The programme has been strongly endorsed by many education stakeholders such as the Department of Education and Science, the National Council for Curriculum and Assessment, HETAC and the Techno Teachers Association, with whom the college has a close association. This is a hugely positive development, not just for GMIT Letterfrack, but also for the Institutes of Technology of Ireland as it is the first programme of its kind in the sector and it builds upon the strong technological aspects of programmes and expertise which already exist within the Institutes of Technology.

In September 2009 GMIT Letterfrack will also offer its first Higher Diploma in Education (Technology). This programme has been specifically designed to allow graduates of other programmes in Letterfrack to also qualify as teachers of technology subjects at second level. This programme is a twelve month programme and also incorporates two teaching practice blocks in secondary schools.



QUOTABLE QUOTES

An optimist stays up until midnight to see the new year in. A pessimist stays up to make sure the old year leaves - **Bill Vaughan**

Cheers to a new year and another chance for us to get it right - **Oprah Winfrey**



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Samples of work from first year students