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Graduate Student Conference

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Proceedings and Abstracts

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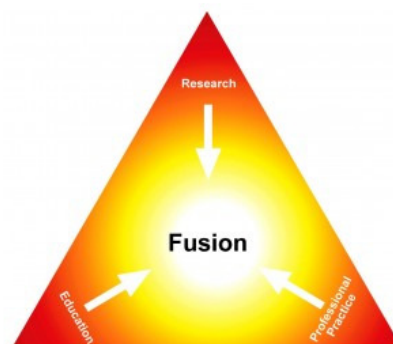
DIT Aungier Street  
17 June 2014

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**Doing more with less:  
making 'research informed'  
decisions about your teaching**

**Fifth Annual Graduate Student Conference**





Dublin, 17 June 2014

Dear Colleagues,

It gives us great pleasure to welcome you to our fifth Graduate Student Conference. Since last year, we are very pleased that a number of participants from last year's cohort have presented at national and international conferences and events. Also some have published in peer reviewed journals, and so the process of disseminating educational research is well and truly underway from the postgraduate programmes in Learning, Teaching and Technology in DIT!

Our vision is that this will grow and continue, and that many who present here today will ultimately disseminate their work further afield. We are confident that you will have a fantastic conference where you will learn, share and meet like-minded colleagues.

As well as wishing you an enjoyable and engaging conference, we would like to take this opportunity to thank you for submitting and/or attending; without your presence there is no conference.

With best wishes,

*Dr Róisín Donnelly and Dr Claire McDonnell*

Graduate Student Conference Co-Chairs

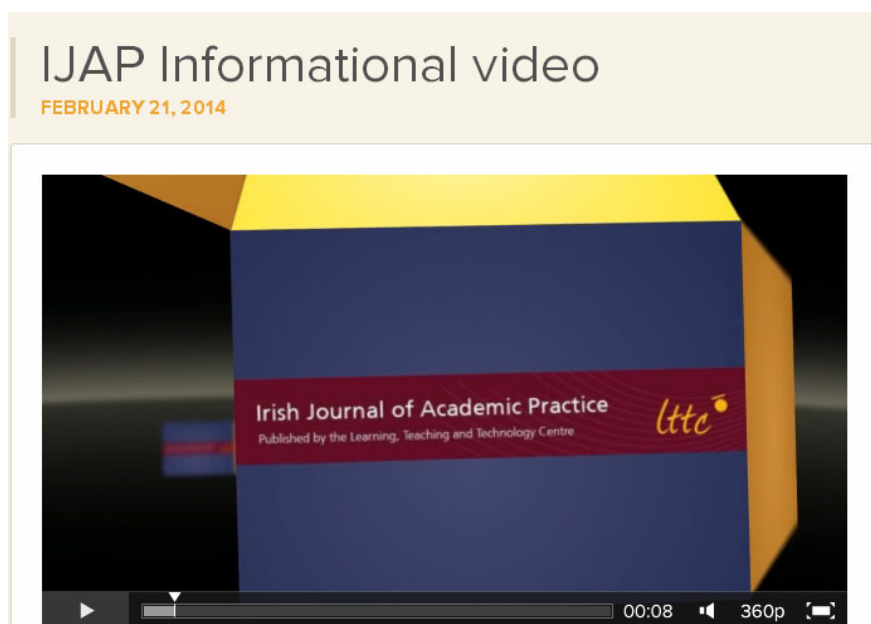


## Introducing the next issue of DIT's Online Journal....



<http://arrow.dit.ie/ijap/>

<http://animoto.com/play/o2iRe7OCjRVrv53P4phGIQ>



**Journal Overview:** This academic year we are introducing the third issue of the online Irish Journal of Academic Practice (IJAP), which is published once annually since 2012 by the LTTTC at the Dublin Institute of Technology; it features peer-reviewed scholarly & practice-based case articles, and research reports written by graduate (diploma and masters-level) participants in the areas related to the MA in Higher Education and the MSc Applied eLearning.

**Purpose:** This journal is a vehicle for the academics who are the participants on the postgraduate programmes to disseminate their research to a wider audience. The participants are drawn from different components of the third level sector in Ireland including vocational, further and higher education. Such



a graduate journal is a good place to learn the 'ropes' of the publishing process, and try out ideas in early stages of research and study.

**Journal Focus & Scope:** IJAP is based the areas of learning, teaching, technology and professional development. Special emphasis is on innovative practices in teaching and learning.

**Articles in the third volume issue include:**

- Does the pedagogy for the teaching of first year undergraduate laboratory practicals still meet the needs of the curriculum?
- Using m-learning as a means to promote self-direction and engagement in apprenticeship theoretical lessons
- Virtual Classrooms in the Workplace: An Implementation Study
- The use of case based multiple choice questions for assessing large group teaching: implications on student's learning
- Teaching the Principles of Effective Online Course Design: What Works?
- How transformational is Irish healthcare education? Exploring the role of intercultural competence learning for practising health professionals
- A case study analysis of student engagement and experiences within a blended learning environment in Irish insurance education
- Engaging Students' Learning through Active Learning in Small Business Management
- Cognitive learning and motivation of 1<sup>st</sup> year secondary school students using an interactive and multimedia-enhanced e-book made with iBooks Author
- Implementing Digital Storytelling as a Technology Integration Approach with Primary School Children
- *Speak clearly, if you speak at all; carve every word before you let it fall:* Problems of Ambiguous Terminology in eLearning System Development
- The role of model making as a constructivist learning tool to enhance deep learning in a building technology module
- Unravelling the myth of effective teaching in mathematics



## Graduate Student Conference

### Theme: **Doing more with less: making 'research informed' decisions about your teaching**

Tuesday June 17, 2014 **Aungier Street**  
Rooms 4079/4081/4083/4085

TIME	EVENT			LOCATION
9.15	<b>Registration Opens, Morning Coffee &amp; Refreshments</b>			Outside 4079
9.30	Welcome & Opening Address Launch of Annual Irish Journal of Academic Practice (Issue 3, 2014)			MAIN ROOM 4079
10.00	Keynote Speaker: Dr Colleen McKenna, HEDERA <b>"Investigating practice: research as part of learning"</b> <i>Chair: Dr Jen Harvey, LTTTC</i>			
11.00	<b>Tea/Coffee &amp; Refreshments</b>			Outside 4079
	<b>Graduate Student Presentations: 15 mins plus 5 mins allowed for questions</b>			
	<b>Theme:</b> <b>Supporting Learning &amp; Assessment</b> <i>Room 4081</i> <i>Chair: Orla Hanratty</i>	<b>Theme:</b> <b>Active Learning Strategies</b> <i>Room 4083</i> <i>Chair: Claire McAvinia</i>	<b>Theme:</b> <b>Performance Policy &amp; Strategy</b> <i>Room 4079</i> <i>Chair: Kevin O'Rourke</i>	
11.30	Barry Ryan Graduate Teaching Assistants; An exploration of the role of the postgraduate teacher in the Sciences	Brett Becker A New Meta-Model of Student Engagement: The Roles of Student Motivation and Active Learning	Tony Kealy Sustainable Business Development: an Irish Perspective	
11.50	Julie Dunne Enhancing professional development and supporting students on work placement by peer-peer learning through an online reflective blog assessment	Tom Bennett Addressing Student Attrition Rates in Undergraduate Engineering through Early Engagement Using Case-based Learning	Kevin Corbett Performance Management in Ireland: an assessment of levels of practice	
12.10	Edel Walsh An investigation of closed book examinations for promoting deep learning among professional accountancy students	John Barrett Using Problem-Based Learning to Develop Software Engineering Skills: Irish Student's Perspectives	Emily Fritze The Rise of Performance Funding in Higher Education: How Ireland Can Draw on Lessons from Three American States	
12.30	John Delap Structuring Peer Mentoring Programmes to Deliver Personal Development Opportunities for Higher Education Institutions	Ian Griffin A case study analysis of student engagement and experiences within a blended learning environment in Irish insurance education	Colm Murphy Risks and Rewards in Designating Technological Universities in Ireland	
1pm	<b>Lunch &amp; Conference Close</b>			
2pm	<b>Presentation of Certificates for CPDs</b>			

## Book of Abstracts

### Keynote: Dr Colleen McKenna, HEDERA

#### Title: **Investigating practice: research as part of learning**

*It is clear to me that the most important feature of any environment that promotes our professional development, and thus the learning of our students, is one that includes ... reflective space.*

(Rowland 2000)

This talk will address research into teaching as a means of enhancing learners' and teachers' experiences. We will consider the extent to which research can be located on a continuum with student learning and we will discuss ways of approaching and sustaining research into academic practice.

Following a broad conceptualisation of enquiring into academic practice, we will consider ways of stimulating practice-based research including using internal and external networks and informal discussion groups. We also will discuss finding 'naturally occurring' opportunities for research. (I will draw on recent work by Fiona English here.) Additionally, I will address ways in which students can become co-investigators and for this, we will look at work by Hasok Chang and Mick Healey, among others.

Finally, I will present recent findings from a project I've been co-directing. The work is exploring approaches to identity construction of those working in academic development (including e-learning), and I will discuss the significance for the study participants of engaging in research and publication, and the impact of research upon their professional development and day-to-day practice.

Rowland, S. (2000). *The Enquiring University Teacher*. Buckingham: Open University Press/SRHE.



## Supporting Learning and Assessment

**Barry RYAN:** College of Sciences and Health, DIT

### **Graduate Teaching Assistants; critical colleagues or casual components in the undergraduate learning laboratory?**

Laboratory training is key to many science subjects and those that teach the practical laboratory skills maintain a pivotal role in undergraduate science training. Graduate Teaching Assistants (GTAs) are regularly used in higher education institutes to teach these practical lab skills. The GTA can be involved in both laboratory teaching and assessing all levels of undergraduates. This varied and challenging role requires support from the institute and if appropriately provided the learning experience can be rewarding not only for the undergraduate, but also for the GTA.

In this review, the critical role of the laboratory GTA will be examined, their support requirement highlighted. Additionally, the multi-dimensional benefits of GTA facilitated research-orientated laboratory learning outlined.

**Julie DUNNE:** College of Sciences and Health, DIT

### **Enhancing professional development and supporting students on work-placement by peer-peer learning through an online reflective blog assessment**

Students on work placement will have different experiences from each other, however they are generally not connected to their peers, but working with professionals under the guidance of a work placement tutor. We found that students were not formally supported by peers and did not learn from the diverse range of activities their peers experienced during work placement. This research describes an approach for developing critical thinking skills through reflective writing by introducing an online blog assessment, which allows experiences to be shared within a class group.

A reflective blog assessment was implemented using the institute's virtual learning environment. We identified key requirements and resources to prepare, support and engage students in all aspects of the assessment. Examples are assessment rubric, instructional videos and reflective writing resources. These resources and activities, implementation of a pre-placement reflective writing workshop, feedback mechanisms, and assessment strategies which actively promoted student interaction with their peers are discussed. Evaluation results including recommendations, limitations and suggested improvements are also included.



Main benefits were all students had the potential to learn from their own reflections; from each other's experiences; from tutor feedback on their blog and peer blogs; from the process of peer review and through broadening the curriculum by connecting the 'class room' setting to 'real life working environment'.

**Edel WALSH:** Affiliation

**An investigation of closed book examinations for promoting deep learning among professional accountancy students in Ireland**

This presentation seeks to explore the impact that closed book examinations as an assessment strategy has on the learning approach of professional accountancy students. A survey based on 97 professional accountancy students and 12 educators shows that the students are intrinsically motivated to learn and want to attain a deep and meaningful understanding of a topic. However a closed book examination can lend itself to fear and anxiety which can result in students engaging in a surface approach to their learning.

**John DELAP:** Access & Civic Engagement Office, DIT

**Structuring Peer Mentoring Programmes to Deliver Personal Development Opportunities for Higher Education Institutions in Ireland**

Building on research identifying the developmental potential of peer mentoring, this case study offers higher education professionals a concrete model for founding new peer mentoring programmes and enhancing existing ones. A three-point rationale is offered for the introduction of peer mentoring programmes at higher education institutions, paying special attention to the developmental needs of socio-economically disadvantaged students. A detailed description and review of a peer mentor programme delivered by Dublin Institute of Technology's Access & Civic Engagement Office, one of Ireland's leading contributors to the development of civic engagement practices is included. Innovative approaches employed by an international selection of peer institutions are also highlighted. The presentation concludes by offering recommendations for best practice in student-student peer mentoring.





## Active Learning Strategies

**Brett BECKER:** Affiliation

### **A New Meta-Model of Student Engagement: The Roles of Student Motivation and Active Learning**

This presentation presents a new meta-model of student engagement incorporating the roles of student motivation and active learning. The meta-model is a synthesis and extension of well-accepted prior research from the past three decades, with some modifications allowing for the quantification of engagement. The student motivation model itself is based on the 'Expectancy  $\times$  Value model' thoroughly developed by Wigfield & Eccles. The active learning model is based on the popular 'Active Learning Continuum' of Bonwell and Sutherland. A primary advantage of this meta-model is presenting student engagement in terms of atomic components, combined in a simple, concise framework. The interaction of these components is clearly defined, and importantly, they are directly addressable by educators, providing 'handles' on which to approach, foster and promote student engagement. The meta-model is also sufficiently general to be truly interdisciplinary. Further, it allows for the quantification of student engagement. Results using survey data provide evidence that the meta-model itself, and the incorporated quantification method represent a viable model. The contribution is a simple, clear framework which educators can use to investigate, quantify and apply approaches to better engage students.

**Tom BENNETT:** School, AIT

### **Addressing Student Attrition Rates in Undergraduate Engineering through Early Engagement Using Case-based Learning**

This presentation examines key issues surrounding student retention in higher education. It documents a pilot study carried out in a first year computer networking module in an engineering program in an Irish Higher education institution. In this pilot study, a laboratory exercise is presented to a first year computer networking class in two ways. The first approach is a traditional one, where the laboratory exercise is provided to students as a set of instructions to build and configure a network topology. With the second approach, students are presented with a particular scenario, and must develop the solution themselves. Students are then surveyed in a bid to determine if case-based learning (CBL) can increase student engagement and if the practices of a higher education institution can impact on student retention.



**John BARRETT:** School, AIT

### **Using Problem-Based Learning to Develop Software Engineering Skills: Irish Student's Perspectives**

The voice of the Irish student has recently grown louder. Their perspectives on the teaching pedagogies used in third-level programmes are vital in determining how well we are engaging our student cohort. The purpose of this study was to compare software engineering students' perspectives of a Problem-Based Learning (PBL) pedagogy and a traditional Teacher-Led (TL) pedagogy. Athlone Institute of Technology students in their penultimate year of a Level 8 Bsc. Software Design were surveyed after completing two, semester long, programming modules one of which used a PBL pedagogy and the other a TL pedagogy. The study found that students were most engaged by the active learning activities of both pedagogies. Although students recognised the benefits of learning through a PBL approach they did not have a clear preference for PBL. The study suggests further research on SE modules using a more structured and scaffolded PBL approach and a hybrid TL-PBL approach.

**Ian GRIFFIN:** AFFILIATION

### **A case study analysis of student engagement and experiences within a blended learning environment in Irish insurance education**

This study aims to concentrate on determining the results of active *student engagement* and *experiences* in using learning supports over a 20-week academic term within a blended learning environment (BLE) in the insurance sector. There is a lack of comprehensive research focusing to date on this topic in the professional education sector. This presentation should interest e-learning developers and educationalists who currently offer or are considering changing an education programme to a blended '*bricks and clicks*' model, as well as those who want to consider how students engage in a BLE. From an Irish perspective, the Hunt Report (2011) comments that there is an increasing need for the provision of educational opportunities that differ significantly from the traditional model. This presentation will highlight that blended learning can be an alternative model to the traditional one provided the correct supports are in place. The two archetypal learning environments can complement each other and accommodate the different learning styles that contribute to examination success. The author draws insights from experience in delivering a blended learning programme to professional learners over a 20-week academic term. This experience is supported with both qualitative and quantitative research that allows for conclusions to be drawn upon and lessons to be learned going forward. Active engagement in a blended learning environment contributes to examination success. There is a positive correlation in a BLE between active engagement and final marks.



Furthermore, an iterative process of communication between educator and student is key to enhancing the BLE.

**Tony KEALY:** Electrical Services Engineering, DIT

**Sustainable Business Development: an Irish Perspective**

This research investigates the current status of sustainable business development practises in Ireland using qualitative analysis on data obtained from semi-structured interviews. The thirteen interviewees were chosen to represent a wide spectrum of influential organisations in Irish society and included private businesses, charity organisations, faith-based organisations, farmer associations, and government representatives. Analysis of the findings confirmed that the three well established key elements that must be considered if businesses are to be developed in a sustainable way, namely Profit, People, and Planet are still valid. However, this research also found that there were other elements important for developing sustainable business. To this end, a unique sustainable business development model emerged from the research findings of this study. This new model identifies four specific key components that are essential inputs to developing sustainable business. These four input components were deemed by the research subjects as essential key elements in the ethos and policies of their businesses in order to maintain sustainability. They included a for-profit ethos, a not-for-profit ethos, an ethical/moral/spiritual ethos and government policy. The research found that business leaders guided by a robust moral/ethical compass who incorporate the input components of this model into their business strategy, will maintain a strong focus on sustainable business development.

**Kevin CORBETT:** Student Services Centre, DIT

**Performance management in Ireland: An assessment of levels of practice**

Performance management (PM) has been defined as a systematic process for improving organisational performance by developing the performance of individuals and teams. It involves understanding and managing performance within an agreed framework of planned goals, standards and competency requirements. The research objective or aim of this study is to establish: *The level of practice of PM in the Irish private and public sectors*. The initial literature review revealed a gap of nine years with regard to a quantitative analysis of the subject matter in Ireland, notably its comparative application within both the private and public sectors. A stratified random sample was deployed for the purpose of the primary research for this work. A self-administered questionnaire was distributed nationwide in 2007/08 to almost 500 organisations, yielding a 40.8 per cent (n=204) useable response rate. The empirical evidence confirms a high level of PM practice in Ireland, particularly in the public sector. The vast majority of respondents to this



survey declare PM to be effective. However, on a sectoral basis, the public sector sees PM as less effectual than does its private equivalent.

**Emily FRITZE:** Mitchell Scholar

### **The Rise of Performance Funding in Higher Education: How Ireland Can Draw on Lessons from Three American States**

Performance-based funding is being implemented in higher education systems across the United States and Europe as policy makers and higher education leaders respond to expectations of efficiency and accountability in public higher education. In Ireland, the Higher Education Authority has begun the process of implementing performance-based funding as it undergoes a Strategic Dialogue with universities, institutes, and colleges to identify metrics that will be used to distribute performance-based funding. This presentation examines literature regarding the development of performance-based funding in three American states, Tennessee, Ohio, and Pennsylvania, and makes recommendations that Ireland should consider when adopting its own performance-based funding. A review of literature on performance-funding implementation in Tennessee, Ohio, and Pennsylvania reveals the importance of criteria and metric selection, the level of funding, and the amount of political and stakeholder support when developing performance-based funding. The recommendations also discuss how Tennessee, Ohio, and Pennsylvania combatted adverse consequences such as grade inflation and the exclusion of low-income and minority students that can occur as a result of performance funding. Despite differences in the political and social construct of Ireland and the United States, the selected states' and Ireland's higher education systems have a similar size and scope, governance structure, and are experiencing similar challenge. These similarities allow for a useful comparison that should be considered by Ireland's higher education community as it proceeds in developing performance-based funding.

**Colm MURPHY:** AFFILIATION

### **Risks and Rewards in Designating Technological Universities in Ireland**



Conference Notes...