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Seeing What is Questionable, How to Begin Research: Proceedings and Abstracts of the Second Annual Graduate Student Conference, 14 June, 2011

Learning, Teaching and Technology Centre

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Graduate Student Conference

Proceedings and Abstracts

DIT Aungier Street
14 June 2011

lttc^o

**Seeing what is questionable:
how to begin research**



Dublin, 14 June 2011

Dear Colleagues,

It gives us great pleasure to welcome you to our second Graduate Student Conference. We are very pleased that a large number of students from last year's group 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,

Marian Fitzmaurice and Roisin Donnelly
MA and MSc Programme Chairs



Graduate Student Conference

MA in Higher Education/ MSc Applied eLearning

DIT Aungier Street Campus

ROOM 3067/68 MAIN ROOM
ROOMS 3044/3045 BREAKOUT ROOMS

Conference Schedule

- 9am Registration, Coffee & Refreshments
- 9.20am Opening Address: Dr Michael Mulvey
- 9:30 Keynote Speaker: Prof Jon Nixon:
Seeing what is questionable: how to begin research
[Chair: Dr Jen Harvey]
- 10.30 Coffee & Refreshments
- 11:00 Graduate Student Presentations¹: 3 parallel sessions:
- **Experiencing learning in different contexts**
 - **Learning Tools & Technologies**
 - **Supporting the first year experience**
- 1pm Close of conference

¹ Each presentation will last 15 mins plus 5 mins allowed for questions



Conference Programme

	Stream 1 Experiencing learning in different contexts Chair: Vincent Farrell ROOM 3044	Stream 2 Learning Tools & Technologies Chair: Muireann O’Keeffe ROOM 3067	Stream 3 Supporting the first year experience Chair: Martina Crehan ROOM 3045
11:00	Mary Upton Professional education: students’ perceptions of effective teaching in tutorials	Kathleen Hughes The wiki way: supporting collaborative learning in Marketing Communication Programmes	Stephen Best Does pre-selection of students through an aptitude test, followed by structured interview, lead to academic success in first year students?
11.25	Rachael Hession Students’ perspectives on active learning techniques in legal professional education lectures	Mark Glynn Technology enhanced teaching; solutions for challenges in higher education	Ita Kennelly Peer mentoring in higher education: does it make a difference?
11.50	Eileen McPartland Using Gardner’s Theories of Intelligence in the teaching of early childhood education	Rory O’Boyle It’s good to talk: discussion in blended learning courses in the context of continued professional development for solicitors	Niall Dixon Scaffolding First Year Online Students for Success
12.15	James McCauley How do doctoral research academics perceive their research activities to be of benefit to undergraduate students?	Claire McDonnell & Michael Seery Pre-Lecture Resources to Reduce In-Lecture Cognitive Load	Kerry Meakin How can we nurture and develop creativity in first year design students?
12.40	Alan Monks Academic Development and Evolving Practice: A Case Study	Denis Cullinane Shared Social Video in Higher Education ‘Blended’ Business Programmes	Robert Morris What are the barriers to independent study and learning in first year engineering students?

1pm Close of Conference



Book of Abstracts

Keynote: Professor Jon Nixon

Seeing what is questionable: how to begin research

The real power of hermeneutical consciousness is our ability to see what is questionable. (Hans-Georg Gadamer, 'Philosophical Hermeneutics'.) All research and scholarship begins with questions. But where do these questions come from and how do we formulate them? How to begin? This concern – with what is questionable – confronts all thinkers and artists. However, it is all too often overlooked in research that relies upon the gathering and analysis of empirical evidence (whether qualitative or quantitative). My talk will focus on the importance in all research and scholarship of achieving a conceptual focus through an ongoing dialogue with the relevant literatures. This, I argue, involves (1) close reading of specific texts (2) reading texts inter-textually (3) reading texts from their own historical point of view. Only through this interpretive process are researchers and scholars able to formulate what is questionable in their particular area of research interest and thereby define their own possible contribution to that area. Without some clarity as to how to begin, we can gain no sense of how to conclude – how to gain some sense of an ending.

Mary Upton: The Law Society of Ireland

Professional Education: students' perceptions of effective teaching in tutorial

This article explores student's perceptions of effective teaching in tutorial in the context of a Professional Practice Course which prepares students for practice as a solicitor. Students' perceptions can provide valuable insight into the effectiveness of a teaching programme. The literature on student-centred learning and Professional Education is discussed. Following an analysis of the literature the author concludes that if professional education is to be effective it must include not only the development of skills for practice, but also the acquisition of knowledge in a manner that is student-centred and promotes student autonomy in learning. A representative sample of students agreed to complete a questionnaire dealing with their perceptions of their learning experience pre-tutorial, in tutorial and post tutorial. The questionnaire was designed with a view to gaining insight into how the students viewed the tutorials, the tutorial materials the role of the tutor and their own role in their learning experience. The responses to the questionnaire suggest that the majority of the students perceive that the function of the tutorials is to assist them in their understanding of the topics, and they view the tutorial as a place of discussion. However many of the students do not perceive the tutorials to be student-centred or to encourage independent learning. This research will inform further research on students' perceptions, and, on the future development of the tutorials on the Professional Practice Course.

Rachael Hession: The Law Society of Ireland

Students' perspectives on active learning techniques in legal professional education lectures

This article explores whether active learning techniques can be effectively introduced to large group lectures in the context of legal professional training. It is limited to the perspective of the students (trainee solicitors). It is clear from research literature that a student-centred approach in the form of active learning techniques engages students and is a more effective form of teaching than the traditional lecturing style generally adopted at higher level. There is a distinctive gap in the research literature relating to professional education. This qualitative study adopts an action research approach and is confined to the introduction of two particular techniques, an in-class exercise and a true or false game, to the traditional lecture format. The views of a small focus group of trainee solicitors from the Law Society's of Ireland Professional Practice Course are engaged. Findings indicate that active learning techniques are effective from a students perspective. The author concludes that limitations found in the use of the techniques can be overcome. Important directions for future research include in-depth analysis of the effectiveness of the techniques in preparing trainee solicitors for the professional role.



Eileen McPartland: Liberties College of Further Education [CDVEC]

Using Gardner's Theories of Intelligence in the teaching of early childhood education

Emphasis on costs and limited resources is a constant presence in a teaching and learning context in 21st century education. This small-scale qualitative study was carried out to examine a perceived gap in the teaching and learning experiences of a group of students in a two-year childcare course of a specific College of Further Education. The distinction between teaching and learning will be discussed, while acknowledging Gardner's theories and encouraging cross-curricular interactions within the Further Education setting. Students were asked to identify how they thought they learnt material in the context of Gardner's Theories of Multiple Intelligences to see if it would assist them in addressing a persistent assessment problem. The research involved an individual interview at tutorial, a follow up group interview and a small-scale student-centred application of the resultant findings that could be addressed in a cross-curricular approach using resources already available in the setting. Students experienced a new type of learning, which centered on each individually identifying their own best learning methodology that could be applied to any learning situation presented and opening up learning as a goal not a challenge. More importantly, students were involved in a process, which allowed them to contribute to greater understanding of a persistent learning problem in their college department.

James McCauley: Dublin Institute of Technology

How do doctoral research academics perceive their research activities to be of benefit to undergraduate students?

The principal rationale for this research paper is to discuss the link between a lecturers Doctoral research activity and its perceived benefits or drawbacks for *undergraduate* students in today's Higher Education Institutions (HEI's). The perceptions that six Doctoral academics have with regard to the impact their work has on such students was specifically investigated. In-depth interviews with them gleaned research results which demonstrate the degree to which their research activities have positive or negative consequences for undergraduate students. Broadly speaking, three main types of activities were identified as having a *positive* impact. First was the topic-specific 'cutting-edge' knowledge that was perceived as beneficial to students. Secondly, the broad-based liberal learning ethos they brought to their teaching added value, whereby some students basked in their 'reflected glory'. Thirdly, their specific research methods skills were of benefit, especially to Dissertation students. A contrary perspective identified the following three *drawbacks*. Firstly, sometimes a Doctoral research academics knowledge was 'pitched' at inappropriate or too high a level for undergraduate students' abilities. The inaccessibility of such staff to these students was a second issue that was problematic. Thirdly, a disconnect between such academics and the actual ownership and relevance of such their work to the students and their future careers was examined.



Alan Monks: Carlow Institute of Technology

Academic Development and Evolving Practice: A Case Study

This research seeks to gauge the impact on practice for graduates of an accredited academic development programme and therefore focuses on their experiences of practice since completion of the course. The literature shows that similar programmes have had positive outcomes but that there can be substantial institutional variation. This project is grounded in an interpretive perspective, derived from a constructivist epistemology and has been conducted as a qualitative case study, and is confined to a single institute. A two stage data collection process employing an initial open-ended questionnaire and follow-up semi-structured interviews was used. Nine volunteers from two consecutive cohorts of graduates participated, each having either two or three years post programme experience. The reported implemented changes to practice were numerous and varied, emphasizing a student-centred theme. Evidence was found that the impact on practice is based on a greater empathy and understanding of the students' needs, more comprehensive and developed conceptions of teaching and learning and the application of *inclusive* reflection to develop practice. Time pressures resulting from an increasing workload was cited as the primary impediment to progress. However, the participants' investment of personal capital in a deeper, more rooted and scholarly approach is likely to provide a mechanism for the continued development of practice and enhancement of student learning.

Kathleen Hughes: Dublin Institute of Technology

The Wiki Way: Supporting Collaborative Learning in Marketing Communications Programmes

The use of wikis has been posited as a tool for collaborative online knowledge creation, increasing engagement, and social constructivism (Wheeler and Wheeler, 2009). The use of wikis in student groups is still relatively new, however, and the need for investigation of its role in supporting group collaboration has been identified in literature (Bruen et al., in Donnelly, Harvey and O' Rourke, 2010). This single cycle action research study aims to contribute to this debate, and should be of interest to instructors who use group work in their teaching, as well as those who wish to explore the application of web 2.0, tools or wikis specifically, in enhancing learning. Wikis were adopted to support a collaborative group project in the final (fourth) year of a general Business degree for an optional Marketing Communications module in an Irish higher education institution. Evaluation of the study involved an email survey, instructor field notes, and review of the wiki content and statistics. Findings support the enhancement of the groups' collaboration, improved communication and social construction of knowledge. This mirrors the results of earlier studies (Wheeler and Wheeler, 2009, Lai and Ng, 2011). From the students' point of view, feedback was generally positive about the experience. It was viewed by many groups as an efficient and effective mechanism of developing a group assessment. This paper aims to further deepen our understanding of the role of wikis in supporting student group collaboration in an online environment. The study indicates that many positive benefits (for both students and instructors) can be gained from embedding a wiki into a group activity.

References

Bruen, C., Fitzpatrick, N., Gormley, P., Harvey, J., and McAvinia, C. (2010). The Management and Creation of Knowledge: Do Wikis Help? In Donnelly, R., Harvey, J., and O' Rourke, K. (Eds), *Critical Design and Effective Tools for E-Learning in Higher Education: Theory into Practice* (pp. 92-112). New York: Information Science Reference.

Lai, Y., C., and Ng, E. (2011). Using Wikis to Develop Student Teachers Learning, Teaching and Assessment Capabilities. *Internet and Higher Education*, 14, 15-26.

Wheeler, S., and Wheeler, D. (2009). Using Wikis to Promote Quality Learning in Teacher Training. *Learning, Media and Technology*, 34 (1), 1-10.



Mark Glynn: IoT Sector

Technology enhanced teaching; solutions for challenges in higher education

Increases in class sizes combined with significant cutbacks in budgets have resulted in staff in higher education being asked to “do more with less”. The aim of this paper is to highlight how technology is being used to address pedagogical and logistical challenges in higher education in Ireland. Data was collected for this study from four different colleges across the higher education sector. A qualitative approach was taken and semi-structured interviews were held with eight academic staff from four different disciplines: Arts, Engineering, Humanities and Science. Common pedagogical challenges were identified from the interviews: assessment of presentation skills; group work and peer evaluation; the first year experience and student motivation. Several different technologies were examined in this research as practical solutions to the aforementioned challenges; on-line quizzes, wikis, on-line peer evaluation, YouTube, screen casting and audio feedback. Results of the research revealed positive feedback from the staff, with regard to the benefits of these technologies and an increased appetite for use of other technologies in the future. In addition, research illustrated that with minimal training for the staff, significant efficiencies can be obtained in these key areas of higher education. Future research would be to expand the number of academic staff and institutes involved in this study and examine the implementation of a training programme for staff on technology enhanced learning. Furthermore, future research should also investigate the impact of these technologies on the student learning experience. There are several examples in the literature of web 2.0 technologies. The study focuses on solving pedagogical problems in learning and teaching, rather than just the promotion of emerging technologies. This research adds to the existing research into web 2.0 technologies by providing real applications of these technologies to pedagogical challenges in higher education.

Rory O’Boyle: The Law Society of Ireland

It’s good to talk: discussion in blended learning courses in the context of continued professional development for solicitors

This paper evaluates (a) student perceptions of blended learning in the context of continued professional development courses for solicitors and (b) student experience of discussion in such a blended learning course. Students in the Law Society of Ireland’s Diploma in Employment Law partook in a blended learning course that contained face-to-face discussion and both asynchronous and synchronous online discussion as an essential feature of their learning experience. Adopting a mixed method approach, students were asked to complete interim and final questionnaires and a focus group was conducted with a sample of students at the end of their learning experience. The results suggest that students strongly approve of blended learning; that each method of discussion is valued by students; the forms of such discussion, whether face-to-face discussion or asynchronous and



synchronous online discussion, can be complimentary; the method of assessment has an important impact on student perceptions of the value of online discussion; and that particular attention must be paid to framing synchronous discussion for it to be effective. With respect to implications for practice, the study confirms that blended learning is a valid means of course delivery in respect of continued professional development courses for solicitors and that such 'time-poor' learners respond well to structured learning requiring mandatory postings. Solicitors also clearly value face-to-face interaction.

Michael Seery and Claire McDonnell: Dublin Institute of Technology

This presentation will outline the development, implementation and evaluation of online resources to reduce the cognitive load of in-class lecture material to a group of first year chemistry students. Students complete one resource prior to each lecture. The aim of the resources is to introduce students to some key ideas and terminology prior to the lecture, so that their working memory during the lecture can focus on application and integration, rather than familiarisation with new terminology. These resources had a short quiz associated with them which was linked to the gradebook in the VLE. The design of the resources was underpinned by the principles of cognitive load theory.

Issues around the implementation of the resources will be discussed, as will a comprehensive evaluation of their effectiveness, along two strands. The first was a quantitative analysis examining the extent to which students accessed the resources as well as their semester test and examination marks. In previous years, a large, highly significant difference between semester and examination marks was observed between students with prior knowledge of their discipline (chemistry) and those without prior knowledge [1]. Therefore, a key test for the pre-lecture resources was their effectiveness in decreasing the cognitive load for novice learners, and thus reducing or eliminating this difference between students with and without prior knowledge. Analysis of semester and examination marks showed that there was no difference in the marks obtained in either the semester or the end-of module examination marks in the current year. The second strand of evaluation involved a mainly qualitative approach. Students were surveyed at the beginning and end of the semester to gain insight into their attitudes and experience of using the pre-lecture resources. This was followed up by semi-structured interviews with 8 students which allowed the different ways in which the learners experienced the online pre-lecture resources to be probed in greater detail. This study has demonstrated the potential of pre-lecture e-resources in assisting novice learners in their study of new concepts in technical disciplines. The nature of the collaborative approach to this research study will be outlined.

References

1. Seery, M. K. (2009). The Role of Prior Knowledge in Undergraduate Performance in Chemistry – A Correlation-Prediction Study. *Chem. Educ. Res. Pract.*, 10, 227 – 232.



Denis Cullinane: Dun Laoghaire Institute of Art, Design & Technology
Shared Social Video in Higher Education 'Blended' Business Programmes

This presentation describes a research study on the student experience of using shared social video content in blended business programmes in higher education. A wide range of both professional and amateur video content was used to introduce emerging Internet and new media applications and technologies to business, enterprise and arts management students. All videos were from social media video sharing sites such as YouTube, BlipTV, and TED. The videos were used extensively in the classroom and online in a Virtual Learning Environment (VLE). The qualitative research was conducted by informal 'in-situ' observations, face-to-face interviews and student reflective review reports. The results of the study indicate student questioning of the educational value of using such online shared video in a blended environment and point to the need for curriculum design considerations and instructional strategies to provide 'scaffolding' to support the achievement of student learning outcomes.

Stephen Best: Dublin Institute of Technology

Does pre-selection of students through an aptitude test, followed by structured interview, lead to academic success in first year students?

The correlation between entrance requirements to schools of architecture and a student's subsequent performance is a perennial question for academics and admissions staff. This paper addresses this issue using longitudinal study of data gathered over a twenty year period (from 1991 to 2011) from the DIT School of Architecture. The data was used to assess whether a suitability test comprising of psychometric aptitude test, portfolio interview and secondary level academic record (Irish Leaving Certificate) could together or individually predict an architecture students future performance. There is evidence that the suitability test provides access to a broader range of academic ability than would be achieved through a second level academic performance alone. There is also an indication that high scores in the interview can predict academic success in the first year of study. Nevertheless, the results from the research provide very little evidence to suggest that any of the three elements individually or combined were good predictors of eventual performance. Neither did it provide evidence that architecture students who performed well on the suitability test were more likely to complete the course on-time nor graduate in numbers higher than the national average for the sector. Furthermore, a significant number of students graduate with lower second class and pass level degrees when compared with the national average. One framing comment: I consider the debate concerning retention and academic performance of students of architecture to be important; this paper does not therefore aim to promote the suitability test as it currently stands, but rather to encourage a critical and conceptual discussion of the various methods and outputs that could be applied to a test to ensure strong academic performance and student retention.

Ita Kennelly: Broadcasting Authority of Ireland

Peer Mentoring in Higher Education: Does it make a Difference?

Peer mentoring is now widely used in the higher education sector in the USA, Australia and more recently in the UK and Ireland. As research and interest has grown in the areas of retention, transition, and student learning, so too has interest in peer mentoring and how it can improve the experience of new entrants to higher education. This paper explores theories relating to student retention, transition and student development and how peer mentoring might be used to alleviate some of the issues that arise for first year students. It also draws on evidence collected in a number of evaluated peer mentoring schemes to provide an insight into the participants' perspectives and to help draw conclusions on whether peer mentoring makes a difference.



Niall Dixon: Dublin Institute of Technology

Scaffolding fully online first year computer literacy students for success

This presentation reports on the findings of a group of first year property students studying a fully online computer literacy module at Dublin Institute of Technology, Ireland. Not all third level entrants will have studied computer literacy prior to college. Those "Web 2.0" savvy students still require a platform to develop their productivity software skills. Digital natives they may be but are they really computer literate? Fully online learning systems in themselves do not foster the type of supportive environments that would encourage students to succeed. A scaffolding approach was taken to support the students' learning. The results suggest that fully online students will have a better chance of success through the provision of a variety of learning supports ranging from regular emails to face-to-face tutorials. Those who navigated the unfamiliar online terrain and availed of the supports succeeded in this module.

Kerry Meakin: Dublin Institute of Technology

How can we nurture and develop creativity in first year design students?

This research paper investigates the perceptions of first year third level design students in regards to their creative thinking and use of creative strategies, while studying a first year design based curriculum in an Institute of Technology in Dublin. The research aimed to question students in a three-phase, sequential project. The first phase, questioned twenty seven students by issuing anonymous questionnaires to gather data on their methods of incubating design ideas, if they experienced any levels of anxiety when doing so, and their satisfaction levels in their design and creative abilities. Literature was reviewed to discover the attributes of those we perceive as creative and if those attributes can be nurtured. Further literature was researched on whether or not creativity can be measured and what are the barriers to creativity. Finally the literature review addressed what might be the correct creative environment for students. The purpose of the investigation of the literature and the questionnaire data gathering was to create a format for the second phase of the project, a one day creativity workshop that addressed issues on creativity raised by the literature and the student cohort. A Creativity Games Day workshop was designed and conducted with a volunteer group of ten. It was hoped the workshop would enhance student's belief in their creative abilities. The third phase of the project involved collecting further data by issuing a second questionnaire at the end of the workshop. A comparison of the data from both questionnaires was discussed to ascertain whether or not the participant's perception of their creativity levels had changed. This small pilot study, while acknowledging the limitations placed on the results due to the narrow experience and small sample size of the research, does suggest that creativity can be nurtured in a student cohort.



Robert Morris: Dublin Institute of Technology

What are the barriers to independent study and learning in first year undergraduate engineering students?

This mixed method case study was carried out in the Dublin Institute of Technology, Ireland and was conducted with the co-operation of four experienced lecturers of engineering and three groups of first year undergraduate engineering students. The main aim of the research was to identify factors which represent barriers to the independent study and learning of first year engineering students. Many first year engineering students do not return to college for the second year of their programmes. Many reasons for this are identified in the research, including the failure of students to pass assessments and exams as a result of the lack of independent study and learning. For this research qualitative interviews were carried out with four experienced lecturers to capture their views and experiences of the study and learning habits of first year students. The data gathered during these interviews, in conjunction with my own personal experiences, and knowledge gathered from the research literature on the subject, served to guide and inform the selection of the questions which were used in a student survey. The quantitative student survey consisted of two parts, the first included questions relating to the profile and study habits of the students, the second employed a set of questions titled "a brief measure of learner autonomy". This resource provides a numeric value for the student's learner autonomy which provided the mechanism used to explore the relationship between the level of autonomy of some students and their profile and study habits. The analysis of the data gathered provides a detailed insight into the views of the engineering lecturers and the factors which represent barriers to the first year students study and learning.