The Trinity Centre for Gender Equality and Leadership (TCGEL) was officially launched at a special event at Trinity College Dublin in October 2017.

Professor Eileen Drew Director of TCGEL, Dr Mary Robinson (former President of Ireland), and Provost of Trinity Dr Patrick Prendergast.

CHAPTER 5 HIGHER EDUCATION



HIGHER EDUCATION Contents

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A Year of Magical Thinking?

Higher Education: An Overview. Not an Inside View



Dr Anne Looney Executive Dean, DCU Institute of Education

I n her review of the year, Dr Anne Looney reflects on the 'magical thinking' that has marked policy in higher education over the last 12 months. Avoiding tough decisions on funding and system structure may make life easier for politicians, she writes, but it is generating uncertainty and hard choices in the HE sector.

Introduction

From August 2016 until March 2017 I served as interim chief executive of the Higher Education Authority (HEA), filling a gap between the retirement of Tom Boland and the appointment of Graham Love. During that time I had the privilege of working with the talented and committed team at the HEA and Irish Research Council, and a privileged insight into the HE system and policy processes. That insight remains privileged; this overview draws on the debates conducted in public and the reports published by government, the HEA, and others. Inevitably my commentary will be shaped in some way by HEA experience and the wisdom of HEA colleagues, as it will by my 14 years as CEO of the National Council for Curriculum and Assessment, but it will also be shaped by my recent months as executive dean of the Institute of Education in Dublin City University.

With apologies to Joan Didion, preparing this overview of the year in higher education in Ireland has served as a reminder that the belief that inevitable events can be deferred or controlled by symbolic or ritual actions is alive and well in Irish education policy circles. To be fair, such 'magical thinking' is a feature, to differing degrees, of most public policy processes – particularly in the modern era of relatively unstable coalition governments, and new forms of social activism that make governments increasingly nervous when faced with difficult and controversial choices. Magical thinking was most evident in the discussions about the funding of the HE system, and in the increasingly complex and contentious debates about system structure. But amid the magical thinking were some magic moments. Below, I offer a personal selection.

Gender equality

First, a couple of magical moments in the past year are worth flagging. The publication by the HEA of the Report of the Expert Group on Gender Equality in Irish Higher Education Institutions, in June 2016, generated a wave of commentary in traditional and social media and in higher education institutions (HEIs). While the controversies at NUIG that led to the appointment of an expert group had been discussed in the sector and more widely, the publication of the report – with its accessible and dramatic infographics showing the gender gap in the academy and quotations from an online survey – generated national and international interest. Because it foregrounded the issue from within the system, the HEA was flooded with invitations from across the globe to share the review process and findings.

In December 2016 three major research bodies announced that HEIs would be required to have a bronze institutional Athena Swan award by the end of 2019. and a silver institutional Athena Swan award by the end of 2023. to be eliaible for research funding. The report gained even more attention in December 2016 when the three major research bodies – Science Foundation Ireland, the Health Research Board, and the Irish Research Council – announced that HEIs would be required to have a bronze institutional Athena Swan award by the end of 2019 and a silver institutional Athena Swan by the end of 2023 to be eligible for research funding. Athena Swan involves benchmarking by external reviewers of progress by an institution or department towards a set of equality principles. The announcement that funding for research would be linked to gender equality accelerated engagement with Athena Swan by Irish HEIs. It remains to be seen whether other funding for HEIs will be linked to equality indicators.

For me, a further magic moment came when, as CEO of HEA, I presented UCC with its Athena Swan award in the Royal College of Physicians in Dublin. In a room dominated by pictures of past presidents (all male) of the RCPI, Prof. Michael Murphy, now retired president of UCC, shared my observation that the room's iconography reminded us that gender equality had a way to go. He told the audience that Prof. Mary Horgan of the College of Medicine in UCC was running for president of the RCPI, and that if elected, she would be the first woman to hold that office since 1654. Prof Horgan is now president–elect, and due to take office in October 2017. To quote Nick Lowe, 'I love the sound of breaking glass...'

New apprenticeships

A second call for new apprenticeships closed on 1 September 2017. The new model of employer-led apprenticeships in partnership with educational institutions has been slow to embed, requiring as it does the forging of new relationships and structural and funding arrangements. But the early signs are promising, with the leadership of the Institute of Technology (IoT) sector notable. The new model has allowed the IoTs to address their particular regional remit. Galway–Mayo Institute of Technology is partnering in an apprenticeship in medical technology, for example. Sligo continued to develop its innovative blended learning apprenticeship in partnership with the Insurance Institute. To date, the universities have not featured. It remains to be seen whether such reluctance is a result of cautious watch-and-see, or of a step too far in partnering with industry and employers, or of good old-fashioned education vs training divides. The announcement of the next round is awaited. Either way, these new approaches to apprenticeships are a welcome development in the system.

Rankings

The admission of Trinity College into the League of European Research Universities (LERU) at the end of 2016 was a significant achievement, not just for Trinity but for the Irish higher education system. In the last ten years only two universities – Trinity and Copenhagen – have been admitted to this group of 23 research-intensive institutions across Europe. Institutional wins like this, along with progress or relatively The significant contraction of state investment in higher education, has destabilised the financial foundations of the system.

steady position in some rankings (with contrasting fortune in others), new international partnerships, and major research initiatives, combine to generate a narrative of steady progress for universities in particular. But these are 'magic' moments, breakthroughs for single institutions or research groups, while the 'magical thinking' on funding and structures continues.

Magical thinking about funding

These 'magic moments' are a personal selection. Magical thinking is far more serious. Irish higher education has been the subject of magical thinking about funding and structural reform over the last 12 months, and for at least the last five years. This has resulted in uncertainty about the future shape of the higher education system and serious concern about the level and mechanism of funding.

For a number of years, Ireland's HE system has seen a serious decline in funding against a backdrop of debate about how HE should be funded. But in the last year, some tipping points have been reached. To some degree, the university sector has been protected in this period by its capacity to borrow for capital projects. Prohibited from borrowing by virtue of being state-owned, the Institutes of Technology survived by using any reserves available to them, and by increasing student numbers, with most of the additional 34,000 students over the last number of years heading to IoTs.

A financial review of the IoTs published by the HEA at the end of 2016 revealed that six faced immediate sustainability challenges, and four others were potentially at risk due to limited reserves. The HEA has taken action to agree three-year financial turnaround plans with the six most vulnerable institutions. But with limited funding available, and no viable plan emerging for future funding at this stage, the HEA has stated that there are risks to whether these plans can be delivered.

The significant contraction of state investment in higher education, declining 38% from \in 2bn in 2009 to \in 1.3bn in 2016 at a time of rising student numbers, has destabilised the financial foundations of the system. The decrease in state funding was compensated somewhat by an increase in student contribution, which currently stands at \in 3,000 per annum. However, even when this is taken into account, overall funding per student has declined by around 20% over eight years to 2016, from over \in 12,000 to under \in 10,000. For the IoT sector, this drop, adjusted for their additional student numbers, is 30%.

The publication of the Cassells Report in March of 2016 was followed by a period of government procrastination. A further review of the funding mechanism (rather than scale) has recently been completed by the HEA. While the publication of the final report of that review, chaired by Brid Horan, is awaited, the useful series of working papers published had strong overtones of 'deckchairs on the Titanic'. Developing new means to allocate the resources is not solving the problem that there are simply not enough resources to allocate.

Recent whispers about increased employer contribution to, and involvement in, higher education have grown louder as this chapter moves

of Trinity College into the League of European Research Universities (LERU) was a significant achievement, not just for Trinity, but for the Irish higher education system.

The admission

towards publication. But there is a deafening silence on student loans, graduate contribution, higher fees, or greater government investment. To imagine that the HE system can continue to expand and diversify to meet a rising population and complex national and international challenges, in the absence of decisions about a sustainable funding model, is indeed magical thinking. No surprise then that DCU's new strategic plan includes income generation as a strategic goal for the next five years.

Magical thinking about structure

The other tough decision awaiting a call is the structure of HE and the final shape of the diversified system. The National Strategy for Higher Education 2030, or Hunt Report, published in 2011, set the system on a course for fewer merged IOTs, and the possibility of universities of technology. The legislation to enable the latter is now pending. Work has progressed on amalgamations in Dublin, but slowly, and there has been active resistance to other clustering. Five years post-Hunt, and two coalition governments later, there seems little appetite to push institutions into mergers. Whether the publication of the legislation acts as an incentive to form relationships remains to be seen.

The lessons from my own institution, DCU, and the creation of the Institute of Education from the incorporation of St Patrick's College, the Church of Ireland College of Education, Mater Dei Institute, and the DCU School of Education, are that mergers take time, sustained goodwill, energetic and committed leadership, and human and capital resources. The magical thinking about mergers is easy. The dark art of delivery is a different matter.

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Mergers take time, sustained goodwill, energetic and committed leadership, and human and capital resources

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The Trinity Education Project

University learning in the 21st Century





Patrick Prendergast Chris Morash Provost, Trinity College Dublin

Vice-Provost/Chief Academic Officer. Trinity College Dublin

rinity College Dublin is in the process of implementing a renewed curriculum that will embed redefined goals in its teaching practice and student learning experience. Professors Prendergast and Morash discuss the fruits of this work, including the simpler system of entry routes for Science beginning in 2018-2019, and new entry routes for other programmes opening up in 2019-20.

Renewing the Trinity Education

The 2014-19 Strategic Plan for Trinity College Dublin set out an ambitious goal for the university: to renew the Trinity education. We knew, of course, that the teaching mission of the university was already performing well. Trinity courses have already proven their attractiveness for students, and growing numbers from outside of Ireland testify to the global reputation of our courses. At the same time we do see that much of this is related to reputation and "brand" rather than any actual measure of quality, and in a world in which the nature of knowledge is changing in unprecedented ways, staving as we were was not an option: as a character in a well-known novel says: "If we want things to stay as they are, things will have to change around here".

From the outset of the renewal process, it was clear that students came to Trinity not simply because they wanted to acquire a certain set of facts or skills: they came because they had an understanding of the sort of person they wanted to become. Our first step, then, was to try to codify something that almost eludes definition: an answer to the question, "what kind of person can I be?" We distilled this sense of transformation into four graduate attributes:

- to think independently;
- to communicate effectively; »
- to act responsibly; and
- to develop continuously.

If our graduates can lay claim to these four attributes by the time they walk out Front Gate for the last time. we believe we will have done them some service.

Achieving this goal, however, is a complex task, and we were conscious that two competing values had to be accommodated in a Trinity education. On one hand, throughout the university community there is a strong value placed on the importance of a solid disciplinary formation. Students told us that they want to become experts in their discipline, and that they want to engage in research alongside their

... to think independently, communicate effectively, act responsibly, and develop continuously.

We are building a more flexible programme architecture to allow students to explore more subject areas and shift focus or pick up a minor subject area in later years. teachers and "become" a historian, or a sociologist, or engineer. For many, this was a defining feature of Trinity's offering.

At the same time, as their professors, we know we are in an era when the ability to reach out from a secure disciplinary base to other areas is important. This is true not simply in respect of future employability, but in terms of what it means to be educated in our changing world. In addition to identifying the importance of a solid disciplinary formation with points of contact beyond itself, the view quickly emerged that, to achieve the graduate attributes to their fullest, we should redefine the learning experience to include co-curricular and extra-curricular activities. Finally, we recognised that any review of our curriculum provided an opportunity to examine the ways in which students can experience a wider range of teaching, learning and assessment methods so that they can take an active, self-directed approach to their learning and thereby develop twenty-first century transferable skills.

In short, in a world in which the nature of work, and the nature of knowledge, is in a state of flux, we want our students to have both the solid foundation and the mental flexibility to live fully their responsibilities and potential as global citizens.

The Mechanics of Change

Trinity is now in the process of implementing a renewed curriculum that will embed these goals in our teaching practice and student learning experience. One immediate fruit of this work will be a simpler system of entry routes for Science beginning in 2018-19, with new entry routes for other programmes opening up in 2019–20. The simpler system of entry routes for Science starting this year is described in greater detail by Dr Kevin Mitchell farther on in this chapter - see p18. Briefly here, in 2018-19 students will be admitted to Year 1 of the new programme architecture for Science via the four new Science streams: Physical Sciences; Chemical Sciences; Biological and Biomedical Sciences; Geography and Geoscience. These new entry routes will not only simplify student choice, they will allow for better decision-making, in that the four entry points correspond to existing second-level Science subjects. So, where a prospective student might not be expected to know what Nanoscience is, they will have already studied Physics or Chemistry. This means that they can enter through a familiar Physics or Chemistry route, and then progress to specialise in less-familiar Nanoscience in their final years. And so too with other more specialised areas, such as Immunology, Astrophysics, Medicinal Chemistry or Geoscience.

The new Science architecture exemplifies the greater degree of pathway flexibility for which we are striving. Enabling this involved much energetic work beneath the bonnet to standardise processes and procedures across the university. In the Arts and Humanities, we are also building a more flexible programme architecture to allow students to explore more subject areas and shift focus or pick up a minor subject in later years.

Achieving this kind of flexibility in our programme design and systems will also enable more students to avail of study abroad and internship opportunities, and we are vigorously pursuing these avenues as well. The It was clear that students came to Trinity... because they had an understanding of the sort of person they wanted to become.

work necessary to put in place the mechanics for this kind of syllabus is not simple. However, in examining our rules, regulations and procedures, we have applied four simple criteria: simplicity, transparency, consistency, and fairness. When we have embedded these principles across the board, and opened up our structures, the effect on student experience will be transformative.

A more flexible programme architecture will also allow students to avail of specially designed modules that will be open to all students, to be called 'Trinity Electives'. Trinity researchers have, over the past few years, created a series of cross-institutional Research Themes. Currently there are nineteen research themes, ranging from Identities in Transformation, to Cancer, Ageing, and International Development (Fig. 1).

Research Themes



Ageing





Identities in Transformation



Neuroscience



Immunology, Inflammation & Infection

International Development



International Integration



Creative Technologies



Cancer



Digital

Engagement

Next Generation Medical Devices



Humanities



Genes & Society



Nano Science



Smart & Sustainable Planet



Telecommunications

Fig. 1: Trinity's 18 research themes that will drive the undergraduate modules as 'Trinity Electives'

Manuscript, Book & Making Ireland

We are currently developing new undergraduate modules from these research themes led by some of the country's leading researchers, providing an innovative conduit for world-leading scholarship to find its way into the undergraduate curriculum. In this way Trinity will further live its mission as a research university.

Trinity is diversifying its assessment strategies to include a greater range of formative assessment. The distinction between 'formative' and 'summative' assessment is crucial to pedagogical practice in the contemporary university. Where once assessment was simply about determining the extent to which a student had (or had not) learned the required material ('summative'), and assigning this a grade, formative assessment takes a wider view of assessment. Formative assessment is part of the learning process, not its endpoint. So, instead of simply The distinction between 'formative' and 'summative' assessment is crucial to pedagogical practice in the contemporary university.

In Spring 2017, a dozen ideas exchanges were held around the University, involving academic staff, students, administrators, and those involved in supporting student learning. receiving a grade, the student undertaking a piece of formative assessment (typically in the middle of a module) will not only be given feedback on how to improve, but also the opportunity in a subsequent piece of assessed work to build on what they have learned through the assessment process. The culmination of this reform of assessment will be the introduction of a 'capstone' project for every student (already in place in many parts of the university), which will take the form of an independent piece of research-as-learning, which all students will complete in their Senior Sophister (final undergraduate) year. Depending on the discipline, this may take the form of a minor dissertation, a performance, a recital, a set of experiments, or a design project.

Let's Talk...

The most visible part of the Trinity Education Project over the first two terms of the 2016-17 academic year has been the work dealing with structures and systems: the shape of the academic year, programme pathways, progression routes, and related matters. However, ticking along beneath the surface there has been an equally important piece of work underway, involving colleagues sharing their most innovative assessment practices with one another.

In Spring 2017, a dozen ideas exchanges were held around the University, involving academic staff, students, administrators, and those involved in supporting student learning. The formats of these idea exchanges varied, including workshops, seminars, discussion groups and fora, and collectively they have enabled the Trinity community to come together to discuss approaches to assessment in Trinity, and to explore how innovative approaches to assessment can make us better teachers. Themes to date have included assessment variety, programme assessment, the capstone, self and peer assessment, technology-enhanced assessment, and assessing graduate attributes, creativity, and reflection.

Such consultation is very important to us within and outside Trinity. Transformational changes are occurring in the educational context: some are the effect of developments in technology and globalisation, others are a result of the changing needs and expectations of students, employers, and of society at large. Trinity has always made changes to its educational offering to ensure that we are at the frontiers of learning. The Trinity Education Project in renewing our undergraduate education is part of that tradition.

More information available from: trinityeducationproject@tcd.ie and www.tcd.ie/academic-services/tep

World-Class Universities

What are they, and why are they relevant?



Professor Andrew J Deeks President, University College Dublin

his article discusses the characteristics of world-class universities, how these are measured, the challenges facing world-class universities, their core role, and their contribution to the economy and society. The term 'world-class' is defined by the Oxford English Dictionary in a competitive context as something 'that is of a quality or standard regarded as outstanding throughout the world; comparable to or able to compete with the best in the world'. Based on this definition, it is interesting to consider the characteristics that make a university world-class.

Universities are widely and traditionally considered to be places of learning, scholarship and research, institutions which are both transmitters of knowledge and creators of knowledge. Through a sequence of degrees, students become experts in their selected discipline, contribute to knowledge in that discipline and become transmitters of knowledge themselves. Academics (or faculty) are generally involved in both creation and transmission of knowledge.

As it is difficult to measure and compare the effectiveness of transmission of knowledge, creation of knowledge as measured through research performance has become a defining characteristic of world-class universities. Many would argue that world-class research performance is the defining characteristic of a world-class university.

Research performance

Of course, research performance is multifaceted, and only certain facets can be measured. We inherit a system of research publication in academic journals that dates back to 1665, when the Philosophical Transactions of the Royal Society were first published. Research results are described in articles or papers, and these articles are reviewed or refereed by other experts in the field, then published if they are considered to be accurate and of sufficient interest.

Consequently, one way of measuring research productivity is to count the number of refereed journal articles produced by the academics and students of a university. However, just because research is being undertaken and written up does not mean it is 'worldclass'. There are now at least 25,000 peer reviewed journals publishing academic research in every conceivable sub-discipline and in many languages. Only a few of journals in each discipline are generally Research performance is now overwhelmingly measured by number of refereed journal publications and number of citations.

considered to be 'world-class', and this opens up the question as to how to measure the quality of different journals.

Even if a research paper is published in a world-class journal, the results may be of little consequence, and have little impact. One facet of the impact of a paper can be quantified by looking at the number of times the paper is referenced or cited by other papers.

If the impact of a paper is taken as measured by the number of citations, then the impact of a journal can be measured by the average number of citations received by the papers published in that journal – a number known as the Journal Impact Factor.

Research performance is now overwhelmingly measured by number of refereed journal publications and number of citations. Complicating the interpretation of these two measures of research performance is the fact that the number of publications and number of citations indicating 'world-class' varies dramatically between disciplines and even sub-disciplines, and so the numbers should only be compared directly within sub-disciplines. One attempt to do this in a rigorous way is the field-weighted citation impact (FWCI), which compares the number of times a paper has been cited with the average number of times similar papers (i.e. papers published in the same year and in the same discipline) have been cited in the three years following publication.

Academics in some disciplines, particularly those in the arts and humanities, argue that the use of journal paper numbers and citations to measure research productivity does not recognise research disseminated by way of research monographs (books), a publishing channel traditionally used in these disciplines. As book numbers are small and citations of books are small, these numbers do not make effective ranking measures. In addition, while book proposals are reviewed prior to acceptance, the books themselves are only reviewed once published. Consequently research published via monographs cannot be evaluated in quite the same way as journal papers. There is now a trend where academics in disciplines that would traditionally publish books are increasingly publishing journal papers, due to their value in rankings. This is not necessarily a bad thing.

A world-class academic is one who has a worldclass research record, and who may or may not be a good teacher. Research publication statistics are just one way of looking at 'world-class' research performance. Any statistic can be gamed. A journal can increase its journal impact factor by asking authors to include more references to papers published in that journal before accepting their papers. An academic can publish review papers reviewing other research rather than reporting new research, as review papers on average receive more citations than original research papers.

As a result 'world-class' research performance as measured by research publication statistics should be considered a necessary but not sufficient characteristic of a 'world-class' university. In other words, just because the research publication statistics of a university are world-class, that does not mean it is a world-class university, but if a university's research publication statistics are not world-class, then it is certainly not world-class.

International reputation

So what other characteristics does a world-class university have? A worldclass university must have a good international reputation. The university name is a brand. People trust degrees issued by reputable universities and publications by academics who are part of a university with a good reputation. Both the QS and the THE world university rankings employ reputation surveys for this reason. The reputation of a university is important in attracting world-class students and world-class academics.

Talent

This raises two more characteristics of a world-class university – worldclass academics and world-class students. A world-class university will be competing with universities around the world for talent, and attracting some of the very best. Counterintuitively, it will also be losing academics and students to other world-class universities around the world. If no other world-class university wants to take a university's undergraduate students as postgraduate students, postgraduates as junior academics, or to poach associate professors as professors, then that university is not world-class.

Facilities

To compete for students and academics against other world-class universities requires that a world-class university have world-class facilities. Academics need facilities that allow them to achieve their research goals and transmit knowledge effectively. Students will judge the quality of the university by the quality of the infrastructure they see.

Finally, to be world-class, a university must be funded at a level which is competitive with other world-class universities. Funding reductions lead to increases in the student: faculty ratio, deterioration in the facilities, and decreases in competitiveness in each of the characteristics outlined above. While universities can and will survive at reduced funding levels, their ability to be a world-class university is severely impacted.

In summary then, a world-class university has world-class research performance as measured by conventional research statistics, an excellent international reputation, attracts world-class academics and students from around the world, has world-class facilities, and is funded at a level which is comparable with other world-class universities.

Consider now the challenges facing a world-class university. The caricature of a university professor interested only in their research and having little time or patience for their students is one that has been around for a long time, indicating that the tension between teaching and research is longstanding. Nevertheless, global competition (driven both by the opening of the international student market and by the creation of the rankings tables) has increased the importance of research for universities attempting to become world-class.

A world-class academic is one who has a world-class research record, and who may or may not be a good teacher. A university looking to be world-class is motivated to hire such academics as they will contribute to three characteristics of a world-class university: research performance;

To be world-class, a university must be funded at a level which is competitive with other world-class universities. A world-class university resolves the tension between teaching and research by seeing the two as complementary activities. reputation; and of course world-class academics. Nevertheless, as the university also wants to attract world-class students, it cannot afford to let its teaching quality slip, particularly in this age of social media.

Teaching and Research: Complementary Activities

A world-class university resolves the tension between teaching and research by seeing the two as complementary activities, with the academics bringing the latest research into the classrooms, and by the students being inducted into research communities of practice through their academic programmes.

There is increasing awareness of the need to adopt interdisciplinary approaches to address significant global issues such as climate change and sustainability, and so there is increasing pressure for world-class universities to undertake interdisciplinary research and to facilitate interdisciplinary studies. This is a significant challenge for a number of reasons. First, research publication statistics for interdisciplinary research tend to be poorer than for disciplinary research, as the whole publication system works to drive deep disciplinary research. Second, world-class academics working in interdisciplinary areas are very hard to obtain. Finally, interdisciplinary research must be based on strong disciplinary research, and interdisciplinary studies run the risk of educating students who do not have sufficient depth of knowledge in any one area to be useful.

A world-class university resolves the tension between disciplinary and interdisciplinary research by focusing on strong disciplinary research and then creating mechanisms to bring disciplinary researchers together in interdisciplinary teams to address global challenges, and similarly by creating interdisciplinary studies opportunities at graduate level after students have established some disciplinary expertise.

Arts versus Science

Another tension is that between Arts, Humanities and Social Sciences (AHSS) subjects and the Science, Technology, Engineering and Maths (the so-called STEM subjects). The STEM subjects tend to be higher cost to teach, but attract more research grants and produce more research output. The quality of the students entering also tends to be higher. However, due to more universities competing in the STEM space and hence higher competition in these subjects, in a comprehensive university the STEM subjects may be ranked lower than the AHSS subjects, despite performing much better in measures of research performance. Depending on the funding model operating, a university may question why it is supporting lower-ranked expensive STEM subjects rather than further building the higher-ranked cheaper AHSS subjects.

On the other hand, a utilitarian government may look for more graduates in the STEM subjects for economic reasons, and may question public investment in AHSS education.Such governments may put pressure on universities either through a funding model or through policy decisions to change the mix of graduates.

A world-class university recognises the value of having a broad mix of disciplines, and also recognises that students perform best in subjects that

World-class universities are long-lived institutions which outlast individuals, governments and sometimes nations. they are interested in and enjoy. A world-class university also recognises that strong interdisciplinary research is built on strong disciplines, and that without a broad range of disciplines, interdisciplinary research opportunities will be limited.

In a similar way, government policy may seek increased emphasis on innovation, entrepreneurship and applied research for economic reasons, and may reduce the support given to blue-sky research and curiosity-led scholarship.

Blue-sky versus Applied

A world-class university, while recognising the value of innovation, entrepreneurship and applied research, sees these activities as part of a broader mission. Governments must understand that successful research commercialisation is often dependent on the outputs of blue-sky and curiosity-led research, and should seek to encourage and cultivate both applied and blue-sky research and scholarship.

World-class universities also face increasing pressure to engage and contribute to the local community, and to contribute to national policies and initiatives. Since each of these activities can complement the central mission of the university, many universities have embraced some or all of these opportunities.

Nevertheless, one should bear in mind that in terms of scale, such activities are relatively small scale compared with the central teaching and research activities of the university. For example, UCD has a very active enterprise incubator where 30 companies are based, and these companies employ some 200 people. However, including students, faculty and staff, we have more than 30,000 people based on our campus, and so enterprise comprises less than 1% of the activity on campus. We have a Director of Major Strategic Partnerships who facilitates the engagement of the university with a handful of major strategic industry partners. However, perhaps 1–2% of our faculty are engaged in these partnerships.

World-class universities are long-lived institutions which outlast individuals, governments and sometimes nations. UCD, for example, was founded in 1854 at a time when Dublin streets were lit at night by gas lights, and transport around the city was by horse and cart. The Irish nation was only established in 1926, and there have been an extraordinary number of technological, political and social developments since that time.

Five years ago many people in higher education circles were talking about the rise of MOOCs (Massive Open Online Courses), and predicting that these would lead to the demise of the traditional university within a decade. Such forecasts have proved to be misguided, and traditional university places are more sought after than ever before. The number of people attending traditional universities has increased over the last five years, not decreased.

Fourth Industrial Revolution

There is now much talk about a Fourth Industrial Revolution. The Fourth Industrial Revolution is said to build on the Digital Revolution

A world-class university recognises the value of having a broad mix of subjects, and also recognises that students perform best in subjects they are interested in and enjoy. The Fourth Industrial Revolution is said to be marked by emerging technology breakthroughs in artificial intelligence. robotics. nanotechnology, quantum computing, biotechnology. the Internet of Things and 3D printing...

The global research system, which consists largely of the universities, is the primary generator of the advances which are said to underlie the Fourth Industrial Revolution... (which is now recognised at the Third Industrial Revolution), and will result from new technology being embedded within societies and in the human body. The Fourth Industrial Revolution is said to be marked by emerging technology breakthroughs in artificial intelligence, robotics, nanotechnology, quantum computing, biotechnology, The Internet of Things and 3D printing, among others. Indeed, research in world-class universities is contributing to developments in each of these areas, and degree programmes are now available in each of the areas. UCD recently introduced an Internet of Things Engineering degree, which is taught at our Beijing Dublin International College in China.

However, claims that the Fourth Industrial Revolution will make traditional disciplines and/or traditional universities obsolete, again far overstate the case. Although the digital revolution has taken away much of the drudgery involved in computation, programmes in Maths, Statistics, Accounting, Engineering, and so on remain just as popular and just as important as ever. This is because we still need our engineers, mathematicians and accountants to understand the principles of their subjects, even if they use digital tools to take care of the computation. In the same way, even if our Doctors have artificial intelligence assistance and various other technologies available to help diagnose and treat patients, they will still need to be trained in the principles of medicine.

Central role of transmitting knowledge and skills

World-class universities develop thinking skills and people skills, and despite the advances in artificial intelligence, the need for these skills is increasing rather than decreasing. Industrialisation, mechanisation, digitalisation and globalisation have removed large numbers of jobs that involved repetitive processes. Many of the jobs that remain involve higher level thinking and/or human interaction, and these are not going to be taken over by machines in the foreseeable future. The role of the worldclass university in transmitting knowledge and skills therefore remains secure.

Similarly, the global research system, which consists largely of the universities, is the primary generator of the advances which are said to underlie the Fourth Industrial Revolution and the generator of new knowledge and technologies which are global common goods. These advances are not achieved by any one person, but through an iterative process whereby one researcher or research group builds on the advances of another, with these advances being reported in international journals where they are available for access by researchers and developers around the world. Without this system progress would quickly come to a halt.

In Summary

In conclusion, while broad engagement of a world-class university with its local, national and international communities is important, and pursuit of solutions to global challenges is also expected, the core mission of a university remains creating and transmitting knowledge across a wide range of disciplines. World-class universities are characterised by world-class research performance as measured by conventional metrics (which are based on the number of refereed journal papers and the number of times those research papers are cited by other research When appropriately funded, worldclass universities contribute significantly to the economy and society.

papers), but also by high reputation, high quality students, world-class academics (measured by research performance) and world class facilities. Developing and maintaining a world-class university requires funding at a level comparable to other world-class universities as such universities compete with each other for students and faculty. When appropriately funded, world-class universities contribute significantly to the economy and society on local, national and global levels, and governments around the world must recognise that university funding is an investment in the future which will repay itself many times over and in many ways, rather than a cost.

Inaugural UCD Bord na Gaeilge International Summer School

In July 2017, Bord na Gaeilge UCD ran its first ever intenational summer school, Tionól Gaeilge 2017. On-campus accommodation at Belfield, Dublin 4 was provided for those who required it.

Clár Ní Bhuachalla, the university's Irish Language Officer said: "Bord na Gaeilge is very excited about Tionól Gaeilge UCD. We believe that the Tionól will prove popular and will continue to grow in the years ahead. The summer school is particularly attractive to those who would like to learn a lot of Irish within a short period of time and to make new Irish-speaking friends. It is of particular interest to those who may have done quite a few language courses in the past and who would like to experience a new approach to course delivery."



Pictured at the inaugural UCD Bord na Gaeilge International Summer School I-r: Ms Clár Ní Bhuachalla, Bord na Gaeilge UCD; Professor Mark Rogers, UCD Registrar and Deputy President; Ambassador Helmut Freudenschuss, Austrian Ambassador to Ireland; Ashling Harteveld, Bord na Gaeilge UCD.



Ollscoil na hÉireann National University of Ireland



www.nui.ie

The National University of Ireland – Ireland's federal university

The National University of Ireland (NUI) is a federal university with campuses spread across Ireland and with over 350,000 graduates across the world. There are four constituent universities and a number of other associated colleges in the federation, making NUI the largest element of the Irish university sector.

As a unique and historical focal point in Irish higher education, the NUI central organisation serves the interests of the member institutions, by providing services to them and to their graduates. NUI's role and activities also include the following:

- as a Designated Awarding Body, awarding degrees and other qualifications in NUI Recognised Colleges
- awarding higher doctorate degrees such as the DSc and DLitt
- administering an extensive annual programme of awards for students and graduates, including fellowships, travelling students, scholarships and prizes
- providing a forum for research, debate and discussion on major issues of importance to Irish society as a whole.
- administering the matriculation regulations and providing an information service on university entry.



NUI Constituent Universities Na Comh-Ollscoileanna

University College Dublin An Coláiste Ollscoile, Baile Átha Cliath

University College Cork Coláiste na hOllscoile, Corcaigh

National University of Ireland, Galway* Ollscoil na hÉireann, Gaillimh

Maynooth University Ollscoil Mhá Nuad

Other NUI Member Institutions Baill Eile d'Ollscoil na hÉireann

RECOGNISED COLLEGES COLÁISTÍ AITHEANTA

Royal College of Surgeons in Ireland - Coláiste Ríoga na Máinleá in Éirinn Uversity - Uversity

COLLEGES LINKED WITH CONSTITUENT UNIVERSITIES COLÁISTÍ CEANGAILTE LEIS NA COMH-OLLSCOILEANNA

National College of Art and Design - Coláiste Náisiúnta Ealaíne is Deartha (UCD)
 Institute of Public Administration - An Foras Riaracháin (UCD)
 St Angela's College, Sligo - Coláiste San Aingeal, Sligeach (NUI, Galway)
 Burren College of Art - Coláiste Ealáine na Bóirne

*including Shannon College of Hotel Management - Coláiste Ósta na Sionna

Reimagining Science Education at Trinity College Dublin

Preparing Graduates for a Scientific Future



Kevin J. Mitchell Associate Professor of Genetics and Neuroscience and Associate Dean of Undergraduate Science Education, Trinity College Dublin

n 2018, Trinity College Dublin will launch a redesigned science programme, aimed at preparing graduates for a dynamic future in which scientific skills and thinking will be ever more important in an increasingly diverse range of careers.

Science in Modern Society

We live in a rapidly changing world, one in which scientific proficiency and literacy have become increasingly important. The pace of scientific discovery and technological advances is ever increasing, providing tremendous opportunity for those prepared and equipped to avail of them, while also presenting society with important new approaches to tackling emerging challenges.

Ireland has positioned itself as a knowledge economy, successfully building up a thriving hightech sector, with world-leading international and indigenous companies in information technology, pharmaceuticals, biotechnology, medical devices and related areas. Thus, science graduates are in high demand, and have excellent career prospects, not just in existing industries, but in new ones that we cannot even yet imagine. These will continue to transform all our lives in the unexpected ways we have witnessed over recent decades.

Revolutionary developments in areas like artificial intelligence, nanomaterials, precision genome editing, and brain-machine interfaces will provide great opportunity for those capable of taking advantage of them, thereby placing a premium on a scientific education. This will apply not only to those working directly in these areas, but also to those in related areas such as business, law, healthcare, agriculture, education, entertainment, and many others, which will also experience the impact of such advances.

The goal of science education in Trinity therefore is not just to train the next generation of scientists, but also those who will work in other careers enabled by and impacted by advances in scientific knowledge. In doing so we hope to instil an understanding and appreciation of how science works in all our graduates and provide the ultimate in transferable skills – an ability to evaluate and synthesise evidence, think critically and learn rapidly and continually. In addition, the new Science programme will provide science students with the opportunity to engage with broader societal and ethical questions and to consider the responsibilities associated with scientific and technological advances.

The New Science Structure at Trinity

Over the past year, staff at Trinity College Dublin have come together to reimagine the undergraduate science education programme, focusing on the future needs of our graduates and resulting in new course structure, content, and teaching and assessment methodology. The objective is to provide our graduates with an education that equips them with the knowledge, skills and flexibility to avail of increasingly diverse career options arising from advances in science and technology. The redesigned set of science offerings at Trinity will be introduced in 2018.

The signature development of the new Science programme is that there are now four entry routes, each focusing on one distinct area of science: Physical Sciences, Chemical Sciences, Biological and Biomedical Sciences, and Geography and Geoscience. Each stream leads to a wide choice of possible degree specialisations, which include those previously accessible only through direct entry, such as Human Genetics, Nanoscience, and Medicinal Chemistry. (Mathematics and Theoretical Physics will remain as additional direct entry courses due to their highly specialised nature).

Within each stream, students will engage in a customised foundational curriculum in the first two years. This will centre on core modules relevant to each major subject domain, as well as mathematics, statistics, data analysis and computing modules. Students will also be able to take elective modules from the other streams or from related areas such as education, entrepreneurship, science communication, or the history and philosophy of science.

		1st Year	2nd Year	3rd and 4th Year	
TR060	Biological and Biomedical Sciences Stream	40 Core + 20 Elective Credits	40 Core + 20 Elective Credits	BiochemistryMicrobiologyBotanyMolecularEnvironmental ScienceMedicineGeneticsNeuroscienceHuman GeneticsPhysiologyImmunologyZoology	Quota 235
TRO61	Chemical Sciences Stream	40 Core + 20 Elective Credits	40 Core + 20 Elective Credits	Chemistry Chemistry with Molecular Modelling Medical Chemistry Nanoscience	Quota 72
TR062	Geography & Geoscience Stream	40 Core + 20 Elective Credits	40 Core + 20 Elective Credits	Geography Geoscience	Quota 54
TR063	Physical Sciences Stream	40 Core + 20 Elective Credits	40 Core + 20 Elective Credits	 Nanoscience Physics physics and Astrophysics 	Quota 52

We live in a rapidly changing world, one in which scientific proficiency and literacy have become increasingly important. At the end of their second year, students will choose a degree subject in which to specialise and are eligible to enter all those offered within their chosen stream. These span all areas of modern science and reflect the cutting-edge expertise of Trinity's scientists. They range from studies on the subatomic scale to the exploration of the cosmos; from the design and development of new chemical entities to their application in medicine; from the inner workings of cells at the molecular level to the evolution of species over millions of years; and from the geological forces that shape our planet to the environmental and social dynamics of our own species.

Research-led Teaching

Whatever degree subject students choose, they will be brought right to the forefront of knowledge in the particular field by world-leading scientists. In effect, they become members of a department in their third and fourth years, engaged in learning in small classes in a collegiate relationship with faculty members.

Lectures, practicals and tutorials will focus on a practical understanding of the scientific method, its use in the development of fundamental concepts and its application in a wide variety of fields. Students will become skilled in designing experiments, evaluating scientific research, analysing data, assessing evidence for various claims, and synthesising knowledge across domains. The use of online and blended learning resources will facilitate a stronger focus on active engagement with and mastery of scientific concepts and methods. The new structure will also involve more formative assessment, with individual or collaborative coursework forming an important part of the learning process itself.

In their final year, each student will undertake a capstone research project. It is at this point that they move from just learning about science to becoming practitioners, applying their scientific understanding and skills to an original problem. This affords an opportunity to learn how scientific research works in practice at the highest level, and to make their own contribution to the discoveries shaping our world. In some disciplines, students will be able to carry out their projects in clinical research labs in Trinity's affiliated hospitals, in industry, or in collaborating institutions worldwide.

Research Excellence at Trinity

Trinity has a worldwide reputation for academic excellence and is ranked within the top 100 universities in the world. It has a rich scientific tradition, exemplified by alumni such as Ernest Walton, Professor of Physics, who received the Nobel Prize in Physics in 1951 for his work on splitting the atom, and by William Campbell, who received the Nobel Prize in Physiology or Medicine in 2015 for his discovery of a novel therapy against roundworms. This work, carried out at Merck pharmaceuticals, was a direct extension of his education in parasitology in the Department of Zoology at Trinity. Campbell was instrumental in convincing Merck to make this therapy available at no cost to developing countries, resulting in the effective treatment of hundreds of millions of people for the otherwise devastating disease of river blindness – as example of the profound effect that individual scientists can have on the lives of millions.

Students will be brought right to the forefront of knowledge in that field by world-leading researchers. Each stream leads to a wide choice of possible degree specialisations.

The ultimate in transferable skills - an ability to evaluate and synthesise evidence, think critically and learn rapidly and continually.

Professor Kerstin Mey, Pro Vice-Chancellor and Dean at University of Westminster, has been appointed to the new role of Vice President for Academic Affairs and Student Engagement at the University of Limerick. Trinity's scientists continue to build on that tradition of discovery and impact of research on the world. Their achievements have been recognised nationally by strong support from Science Foundation Ireland and internationally by prestigious funding awards from the European Research Council, the Wellcome Trust, and other agencies. Trinity is the only university on the island of Ireland to be one of the 23members of LERU, Europe's network of world-leading research-intensive universities.

Students will become part of Trinity's community of researchers from all across the globe, training in world-class facilities, including dedicated research institutes and centres, such as the Trinity Translational Medicine Institute, the Global Brain Health Institute, the Centre for the study of Advanced Materials and Bio-Engineering Research, and the Centre for Research on Adaptive Nanostructures & Nanodevices, among others. Trinity's strong links with the European Space Agency and with NASA also provide unique opportunities for students to engage in cutting-edge space-related research.

Preparing Graduates for the Future

Trinity Science graduates are well prepared to take advantage of current and future scientific developments. They are equipped with the skills and knowledge to develop their careers in existing areas and in those fields yet to be developed. Approximately a third of our graduates become practicing scientists, in academia, industry or in clinical settings. A similar number go into aligned areas, such as teaching, medicine, science journalism, patenting law or forensic science. The remainder proceed to a diversity of careers not directly related to science but for which their scientific education makes them eminently suitable and highly sought after.

The curriculum design outlined above will allow students to explore areas outside their scientific discipline and will place an emphasis on transferable skills like data handling, statistics, computation, writing, and presentation, which are valuable in any career. More fundamentally, it will foster in graduates the ability to think independently, communicate effectively, develop continuously and act responsibly, not just in their careers, but in their future lives as individuals and members of society.

Vice President for Academic Affairs appointed at UL



Internationalisation and Higher Education



Associate Professor Marie Clarke Dean of Undergraduate Studies, University College Dublin

R rof Marie Clarke defines internationalisation as "the process of integrating an international, inter-cultural or global dimension into the purpose, functions or delivery of post-secondary education". She looks at the ways in which internationalisation is promoted in different countries and at the critical component of internationalising the curriculum.

Introduction

Internationalisation is recognised as a key component of higher education institutions (HEIs). As defined by Knight (2003), it is 'the process of integrating an international, intercultural or global dimension into the purpose, functions or delivery of post-secondary education'. Internationalisation has the capacity to enhance the learning environment for all students, deliver an internationalised curriculum, and prepare students for future roles in a global economy and as global citizens (Warwick and Moogan, 2013). Yet the term is contested (Robson, 2015), as internationalisation is influenced by the wider global context and institutional rationales and practices.

The influences of changing political, economic, socio-cultural, and academic needs have ensured that internationalisation is promoted in various ways in different regions, countries, institutions, and programmes (Teichler, 2004). In Australia, a focus on graduate attributes (ensuring students leave university with a global perspective) has underpinned much recent work on internationalisation in higher education (Crossling, Edwards, and Schroder, 2008), alongside efforts to internationalise the curriculum (Leask, 2007). In Scandinavian countries, internationalisation has focused on student mobility (Tossavainen, 2009). Many of the recent internationalisation efforts on mainland Europe have concentrated on delivering academic programmes in English (Dobson and Hölttä, 2001). In the UK, internationalisation has tended to focus on student recruitment (Warwick and Moogan, 2013).

The future of internationalisation of higher education will be challenged by economic crises, and the need to justify international activities will become essential in an era of high student demand (Brandenburg et al., 2013). There are also ethical implications, requiring a balance in responding to local, regional, and national needs with international competitiveness in order to mitigate the inequalities between the developed and developing worlds (Naidoo, 2011).

Internationalisation in an institutional context can be challenging. In some cases, institutions adopt a symbolic approach to internationalisation and fail to address the needs of international students. Some faculty view international students as problematic, and culture shock is a significant factor of the international student experience (Kelly and Moogan, 2012). The internationalisation of the curriculum, according to Leask (2013), is a critical component of any university's internationalisation strategy, and discipline communities are central to the process. She defines internationalisation of the curriculum as the incorporation of an international and intercultural dimension into the preparation, delivery, and outcomes of a programme of study (Leask, 2009). For Robson and Turner (2007), internationalisation calls for a range of pedagogies and explicit induction into the discourse communities of the institution. Jones and Killick (2013) suggest that the internationalisation of the curriculum needs to be linked to discussions about pedagogy and contexts that shape disciplines. There is still much to be achieved in this area (Marginson and Sawir, 2011).

Some

institutions make little effort to internationalise the experience of domestic students. Some institutions make little effort to internationalise the experience of domestic students (Hyland et al., 2008). The 'Internationalisation at Home' movement which developed in Europe (Nilsson, 1999) focuses on the local context, recognising that not all students can avail of opportunities to study abroad (Beelen, 2007). Where internationalisation is promoted in an environment of equity, equality, and diversity, the learning experience is enriched for students and faculty alike (Jones and Brown, 2007). However, government policies on internationalisation provide the context against which institutions formulate policy (Leask and Bridge, 2013), and this is the case in Ireland.

Government policy and internationalisation in Ireland

There are more than 40 HEIs in Ireland; 24 are public HEIs, comprising seven universities, fourteen institutes of technology, and three specialist higher education colleges (two focused on teacher education, one on art and design) (HEA, 2017). In 2015/16, there were 222,618 student enrolments in public HEIs in Ireland (119,798 in universities, 90,150 in institutes of technology, and 12,670 in the specialist higher education colleges). In 2014/15, 8.8% of all full-time students (15,095) in HEA-funded higher education institutions were international students. Of these, 2,097 were undertaking advanced research (1,943 PhD students and 154 research master's students) and 2,989 were enrolled on taught postgraduate programmes (HEA, 2016). There were also 10,055 incoming exchange-students, 48% of whom (4,900) were Erasmus students; 2,501 outgoing exchange-students, 73% of whom (1,835) were Erasmus students; and 2,628 students registered on Irish programmes in campuses overseas (HEA, 2016).

Ireland has supported international student mobility through Erasmus for more than two decades, during which time 44,944 students from Ireland have pursued an Erasmus study or work placement in one of 30 countries (HEA, 2016). A range of scholarship schemes support international students to study in Ireland, including the government's international scholarships, the Brazilian government's Science Without Borders programme, the Saudi government's King Abdullah Scholarship Programme (KASP), the US Generation Study Abroad initiative, and the programmes of the Fulbright Commission of Ireland, the Deutscher Akademischer Austausch Dienst (DAAD), and Campus France, with whom the HEA has signed an agreement in the area of hospitality management and culinary science (HEA, 2016). International cooperation in teaching and administration has been supported through the Erasmus, Erasmus Mundus, and Tempus programmes, now amalgamated into Erasmus+.

Ireland needs to be positioned as an attractive, knowledgeintensive economy underpinned by a research-rich but restructured higher education system. There has been an explicit policy commitment to facilitate and support the development of Ireland as an international education centre for over 20 years (Clancy, 2015). Since 1987, Ireland has participated in the European Commission's Erasmus exchange programme, was a signatory to the Bologna Declaration in 1999, and set up a National Framework of Oualifications in 2003, establishing a key system-level infrastructure for supporting international student mobility (Mernagh, 2010). Internationalisation comes under the remit of not just the Department of Education and Skills (DES) but also the Department of Foreign Affairs and Trade and a wide range of government agencies. The publication of Investing in Global Relationships: Ireland's International Education Strategy 2010–2015 set out the first coherent government strategy on internationalisation and was the first of its kind in Europe to set targets (Finn and Darmody, 2017). Most actions focused on increasing the recruitment of international students and were viewed as successful in exceeding set targets. In support of national objectives, the Irish Research Council (IRC) and Science Foundation Ireland (SFI) have focused on collaborative research relationships between researchers in Ireland and in partner countries (Yang, 2017).

The most recently published strategy document, Irish Educated, Globally Connected: An International Education Strategy for Ireland 2016–2020, is specifically linked to the National Skills Strategy 2025, the forthcoming Foreign Languages Strategy, the Trade, Tourism and Investment Strategy, and labour market strategies. A strong economic theme underlies this document. It refers to Ireland as an open economy, reliant on international trade to build sustainable long-term growth. It emphasises the economic value of the international sector, currently worth approximately €1.58bn a year, and has set an annual income target of $\in 2.1$ bn. The strategy aims to increase the numbers of international students and researchers coming to Irish HEIs, increase outward mobility for Irish students and academics/researchers, and connect the benefits of internationalisation with enterprises in support of national economic ambitions. The Action *Plan for Education (2017)* published by the DES commits to introducing the International Education Mark and amend the current 12-months stayback permission for international students to meet current skills and language shortages. HEIs are expected to embed internationalisation in strategic plans and across their three core roles -teaching and learning, research, and engagement.

Institutional responses to internationalisation: Context and provision

The Irish higher education sector sustained severe cuts to resources during economic austerity. From 2008 to 2015, state grants to the sector declined by 38% (Clarke et al., 2015). The Employment Control Framework (ECF), introduced in 2008 and still in place, resulted in a decrease of core staff by 12%, a real-term reduction of 4,000 staff (Boland, 2015). Staff-student

HEIs are expected to embed internationalisation in strategic plans and across their core roles - teaching and learning, research, and engagement.

The presence of international cultural centres on Irish campuses makes an important contribution to the internationalisation of the higher education community at home. ratios in HEA-funded institutions have deteriorated significantly in recent years, rising from 1:15.6 in 2008, which was in line with the current OECD average, to 1:19.8 in 2013/14 (HEA, 2017). In addition to cuts to resources, successive governments recommended reforms for the sector through the publication of reports (*The National Strategy for Higher Education to 2030: Report of the Strategy Group*) and a series of policy initiatives, including a performance framework where HEIs set targets and reflect progress towards national goals.

The need for structural change and accountability in the sector was a recurrent theme and promoted the view that Ireland needed to be repositioned as an attractive, knowledge-intensive economy underpinned by a research-rich but restructured higher education system (Harkin and Hazelkorn, 2014). In the national policy context of increasing domestic demand for higher education, which is expected to rise year-on-year until 2027, and of national targets for widening participation, there are a number of demands on the system. The future funding of the sector is currently under review. The DES (2017) has indicated that the funding approach will be underpinned by core principles, including the need for it to be metric and outcome-based and reflective of national education policy. A key consideration of the review will be the development of a funding model to ensure that HEIs are agile and responsive in meeting evolving skills needs (DES, 2017). Many HEIs have pointed to the challenges they face, due to lack of resources, with increasing student numbers and the many demands of meeting national objectives. Under the Higher Education System Performance Framework 2014-2016, HEIs were expected to be globally competitive and internationally oriented so the country would become recognised as a world-class centre of international education (HEA, 2013).

Despite the very difficult circumstances in which Irish HEIs have operated in a period of prolonged cuts to resources, they have been very successful in their internationalisation efforts. Recruiting international students was perceived as an important element of revenue generation in this context. Internationalisation is a key component of institutional mission statements. International offices are now well established on higher education campuses. The Royal College of Surgeons has a strong international presence, with a university in Bahrain, two medical schools in Malaysia (at Perdana University and, jointly with UCD, at Penang Medical College), and an institute in Dubai (HEA, 2016). Other institutions have also developed important global relationships, establishing campuses and international officers overseas and offering programmes in partnership with institutions and providers abroad. In 2014/15, 2,628 students were registered on Irish programmes in campuses overseas (HEA, 2016). The presence of international cultural centres on Irish campuses, such as the UCD Confucius Institute for Ireland and DCU's Ireland India Institute, makes an important contribution to the internationalisation of the Irish higher education community at home (HEA, 2016).

From 2000/01 to 2012/13, the number of international students attending universities increased from 4,184 to 10,981 (Finn and Darmody, 2017). The Irish higher education sector has performed very well in increasing the recruitment of international students from a diverse range of countries,

such as India, Brazil, the US, Saudi Arabia, and China – the British Council noted Ireland as one of the top ten partner countries for co-operative education institutions in China (HEA, 2016). In terms of outward mobility, the sector also enjoyed success. In 2011/12, 10% of NFQ level 8 graduates studied or undertook a placement abroad, a mobility rate in line with the European average (HEA, 2016).

In 2011-12, 10% of NFQ level 8 graduates studied or undertook a placement abroad, a mobility rate in line with the European average.

It is recognised that the internationalisation of curricula will enhance the skills base of Irish graduates through foreign language acquisition, internships, and personal development. Irish HEIs have been successful in European Commission-funded international, collaborative research consortia through the Framework Programmes, significantly enhancing research capacity. This is complemented by national schemes such as the IRC's Ulysses Research Programme, which supports the exchange of Irish and French early-stage researchers, and SFI's US-Ireland Research and Development Partnership Programme (HEA, 2016). The development of joint degree programmes by Irish and international HEIs is another indicator of success in internationalisation (McMahon, 2014). Irish HEIs have contributed to capacity-building in countries with less highly developed higher education systems, through the Programme of Strategic Cooperation between Irish Aid and Higher Education and Research Institutes, and through initiatives previously funded through the Tempus programme (HEA, 2016). Despite real successes in internationalisation, though, a number of issues need to be addressed at both structural and institutional levels.

Areas for consideration in internationalisation

While HEIs have been very successful in student recruitment, some structural issues impact on internationalisation. These include a shortage of affordable accommodation, particularly in Dublin (HEA, 2015), and the need to establish efficient systems for student visas, student immigration, and student registration at the Garda National Immigration Bureau. More government investment in scholarships is also required. Outward mobility is a significant challenge for institutions, and this is reflected in the operation of the Erasmus programme.

Erasmus, since its inception, has been very successful in Ireland. The programme has diversified the student body and contributed to the economy. HEIs absorb the cost of incoming Erasmus students, which is not fully off-set by the savings made from out-going Erasmus students, who are fewer in number (HEA, 2016). This needs to be addressed. Outward mobility is a particular challenge for disadvantaged students, due to lack of finance and a reluctance to forgo part-time employment opportunities (HEA, 2015). The European Social Fund should be used to provide structured supports for these students to avail of international educational experiences.

Recruitment of full-degree students and short-stay credit-mobility students presents distinct challenges for HEIs. Short-stay credit-mobility students are supported through programmes such as Erasmus+, Science without Borders, and the Junior Year Abroad scheme (HEA, 2016). It is important that these students are encouraged to avail of educational opportunities in Ireland. This will require additional supports for HEIs as they continue to meet the needs of increasing numbers of domestic students.

To successfully internationalise the curriculum and develop inter-cultural learning, academic staff must possess the necessary expertise. This requires investment in professional development. The National Forum for the Enhancement of Teaching and Learning, with the appropriate allocation of resources, can play an important role in supporting this activity. It is recognised that the internationalisation of curricula will enhance the skills base of Irish graduates through foreign language acquisition, internships, and personal development. This requires HEIs to engage in regular curricular review at programme and institutional levels, to ensure all students will benefit from internationalisation experiences at home and abroad.

Irish HEIs have made a significant contribution to capacity-building in other countries. The eligibility of a range of non-EU partner countries (across the Western Balkans, Eastern Europe, Africa, the Middle East, and Russia) to participate in a limited number of actions under Erasmus+ creates new opportunities for Irish HEIs to continue this work. Through participation in the Scholars at Risk Network, HEIs across the island of Ireland have provided placements for refugee scholars fleeing war and persecution (HEA, 2016). The Programme of Strategic Cooperation between Irish Aid and Higher Education and Research Institutes requires continued and sustained investment so that Irish HEIs can continue to build capacity with developing countries.

Conclusion

The internationalisation of higher education comprises many components and is influenced by the wider global context and institutional rationales and practices. Ireland is well placed to attract international students, and Irish HEIs have been very successful in doing so, despite austerity. The HEA and institutions recognise that internationalisation goes beyond student recruitment. As Warwick and Moogan (2013) suggest, internationalisation is an ongoing process; it includes teaching and learning, research collaborations, curriculum development, student experience, and faculty and staff development. Internationalisation in higher education requires more investment and support from government, to ensure that Irish higher education institutions can continue to deliver and enhance the educational experience of all students.

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The Educational Turbulence from Brexit

'A Europe of Education'



Alun Jones Professor of Geography, UCD



Liam Cleere Senior Manager -Research Reporting and Analytics, UCD

ducation has been at the heart of European integration since the 1960s. and to date the UK has played a key role in delivering a 'Europe of Education'. Given our proximity and shared history and language, it is not surprising that Ireland enjoys close educational ties and strong collaborative research links with the UK. In this article, the authors examine the possible consequences for the Republic's universities, research networks, and researcher migration arising from Brexit.

Article 50 of the Lisbon Treaty was triggered by the UK government on 29 March 2017, with unpredictable consequences for the higher education sectors in the UK and Ireland, north and south. Political negotiations over Brexit and their reporting have emphasised the 'hard' politics of trade, investment, and business consequences for the UK economy, whilst apparent 'softer' issues such as education have seemingly merited less attention. Yet education has been at the heart of European integration since the 1960s, through the sterling efforts of Altiero Spinelli, a founding father of the European project. For Spinelli, a 'Europe of Education' required student and teacher mobility, research cooperation, and knowledge dissemination linking European science and culture and underpinned by a set of core beliefs and values.

The UK has to date played a key role in delivering a 'Europe of Education'. Its universities rank among the world's finest. According to the latest OS rankings, four British universities are in the world's top 10, and 13 are in the top 100. No European country can match this. A 'Europe of Education' has been crucial to the success of British universities. This relationship works both ways, as the UK has made a significant and longstanding contribution to the EU's higher education and research sector. There are currently 125,000 EU students in the UK, of whom approximately 9% are from Ireland. Currently 17% of all UK academic staff are from the EU, while at the most prestigious UK universities this figure exceeds 20%. In Irish higher education institutions (HEIs), around 7% of academic staff are British, making them the largest nationality group after Irish; this figure strongly indicates the close cultural and professional ties between Ireland and the UK. Half of the European Research Council's (ERC) mid-career grants in the UK are held by EU researchers, and over 60% of the UK's internationally co-authored papers are with EU partners.

In research terms, the UK has been a net beneficiary from EU funding, collaboration, and supports. In Framework Programme 7 (2007–2013), the UK contributed nearly \notin 5.4 billion to EU research projects but received nearly \notin 8.8 billion back in the same period. Over the last decade, the UK research base's

dependence on funding from EU sources has increased significantly. The headline figure is now approximately €1 billion a year of EU money spent on research and development in the UK. This equated to about 15.5% of UK higher education's research income in 2015. Crucially, the UK heads the EU table for research grant allocations from European research programmes and frameworks, including the latest Horizon 2020 scheme.

Given our proximity and shared history and language, it is not surprising that the UK and Ireland enjoy close educational ties and strong collaborative research links. But what are the possible consequences for the Republic's universities, research networks, and researcher migration arising from Brexit? What are the implications for student mobility, particularly in the Erasmus programme of exchange, between the Republic and the UK? And what might be the impact of changes in fee status for Irish students wishing to study in the UK after Brexit, not least the additional pressures on the Irish higher education sector's capacity to absorb the non-migrators?

As things stand, students, academics, and HEIs in Ireland will find it difficult to avoid the educational turbulence from Brexit. Around 11,000 Irish students are studying in UK HEIs; this is approximately 9% of all EU students enrolled in the UK. Under the current EU residential rules, all EU students studying in the UK must be charged the same fees as British students. Under a 'hard Brexit' with no special arrangement between the UK and Ireland in place, Irish students would be faced with three options:

- 1. Pay the full international student fees to study at a British university (£20,000-£30,000 a year, on average).
- 2. Apply to a different EU country, notwithstanding language differences and challenges.
- 3. Stay in Ireland and search for places in the Republic's universities through the CAO entry route.

Should most Irish students choose to apply through the CAO, this would put more pressure on the Irish undergraduate system. In this scenario, HEIs in the Republic would have to provide 6% more student places – worsening the student-staff ratios in the system, which are already poor by international standards.

Simultaneously, British students hoping to study in Ireland would be subjected to non-EU fee rates. These range at present from €10,000 to €30,000, depending on institution and course. In this scenario, around 800 Northern Irish students and 1,500 students from mainland UK who are currently studying in Ireland would be affected.

Figure 1: Student flows between Ireland and the UK. Sources: 2015 figures from www.hesa.ac.uk and www.hea.ie (not including Erasmus)



The flagship Erasmus programme for student mobility is also likely to be put into some turmoil by Brexit. The UK is a popular destination for Erasmus students, taking more than 27,000 EU students a year. While the UK is currently the fourth most popular destination for Erasmus students, after Spain, Germany, and France, these countries send out almost as many students as they receive through Erasmus. By contrast, the UK receives almost twice as many students as it sends to other EU countries (Figure 2).

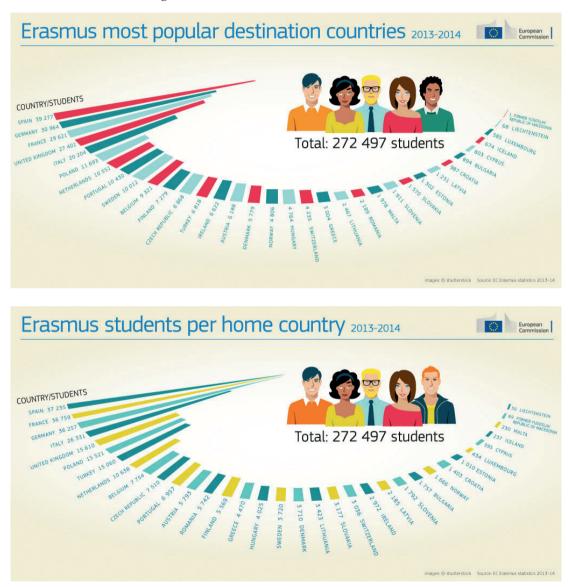


Figure 2: Erasmus students' destination and home countries. Source: http://ec.europa.eu/programmes/erasmus-plus/about en

This asymmetry is a further indicator of the substantial role UK HEIs play in the EU marketplace for higher education. Similarly, Ireland receives double the number of Erasmus students as it sends out, with many, according to recent EU surveys, citing the desire to study in a natively English-speaking country as the reason. There are pressing issues for Ireland from Brexit if, as anticipated, the UK chooses not to participate in the Erasmus programme after 2019. How might Irish HEIs cope with the diversion of Erasmus students away from the UK? How might this Erasmus diversion compound the pressures on the Irish higher education system?

Decoupling the UK from a highly interconnected European higher education system presents profound challenges. This can be observed most readily in the research domain, especially through research collaboration. For many reasons, serious consequences for European research are envisaged as a result of Brexit. At a member state scale, the EU-funded research landscape is dominated by six countries: the UK, Germany, France, Spain, Italy, and the Netherlands. Ireland's annual EU research funding is about 10% of our nearest neighbour's, the UK (see Figure 3).

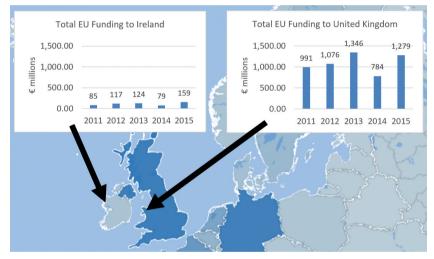


Figure 3: Competitive research funding won from the EU from 2011 to 2015. Source: http://cordis.europa.eu/

Significantly, in the five-year period from 2011 to 2015, the UK received the most research funding from the EU of any country, including Germany. In Europe, Ireland was in 17th place, behind states such as Greece, Austria, and Denmark in the EU, and Switzerland, Norway, and Israel outside the EU (states that bought in to EU research funding programmes with significant conditions attached) (see Figure 4).

Rank	Country	Total EU Research Funding 2011-2015 (€ millions)
1	United Kingdom	5,476.18
2	Germany	5,442.23
3	France	3,625.04
4	Spain	3,122.54
5	Italy	2,92634
6	Netherlands	2,618.20
7	Belgium	1,558.80
8	Switzerland	1,385.69
9	Sweden	1,263,96
10	Austria	952.17
11	Denmark	864.4
12	Greece	815.57
13	Israel	683.65
14	Finland	683.21
15	Portugal	600.07
16	Norway	581.56
17	Ireland	564.47
18	Poland	465.15
19	Hungary	312.84
20	Czech Republic	306.88

Figure 4: Top 20 EU research funding per country. Source: http://cordis.europa.eu/

It is interesting that while non-EU countries such as Switzerland and Norway appear in the top 20 of EU-funded countries, the percentage of EU projects co-ordinated there, particularly in the case of Switzerland, is relatively low, at 16.5%. The top-funded EU countries typically have coordination rates of more than 30%. The UK has the highest percentage of project co-ordination in the top 20 grouping, at 47.5% (see Figure 5).

Ranking	Country	No. of projects in 2015 only	% Co- ordinated	% Sole Partner	% Participant
1	UK	1,795	47.50%	34.40%	18.10%
2	Germany	1,530	34.60%	17.10%	48.40%
3	Spain	1,229	45.30%	27.70%	27.00%
4	France	1,158	34.50%	20.40%	45.10%
5	Italy	1,135	36.70%	18.70%	44.70%
6	Netherlands	896	34.60%	17.70%	47.70%
7	Belgium	620	24.00%	11.80%	64.20%
8	Sweden	490	26.50%	16.70%	56.70%

9	Austria	438	26.50%	12.80%	60.70%
10	Greece	404	22.00%	4.50%	73.50%
11	Denmark	367	37.60%	27.50%	34.90%
12	Switzerland	345	16.50%	11.60%	71.90%
13	Portugal	335	23.30%	10.40%	66.30%
14	Finland	331	29.00%	16.30%	54.70%
15	Ireland	277	35.70%	20.20%	44.00%
16	Poland	254	17.70%	9.40%	72.80%
17	Norway	238	28.20%	12.20%	59.70%
18	Israel	233	41.20%	34.30%	24.50%
19	Czech Republic	196	11.20%	7.10%	81.60%
20	Hungary	184	21.70%	15.20%	63.00%

Figure 5: Numbers of projects per country in 2015. Source: http://cordis.europa.eu/

The significance of the UK in European research terms is also apparent from data on the quantity of research output and the scale of its citation impact in Europe. Again, the primacy of the UK in a 'Europe of Education' is clear (see Figure 6).

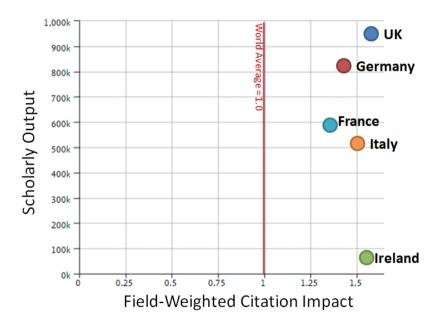


Figure 6: Scholarly output vs field-weighted citation impact per country. Source: Elsevier SciVal 2012 to 2016 Research collaborations between Ireland and the UK are particularly strong. According to Elsevier SciVal data, 12,968 papers were co-authored between academics from the two countries between 2012 and 2016. This represents 20% of Ireland's total output of 66,251 papers in the period. The UK is our number one collaborator on research papers, and the volume of this collaboration is more than we have with Germany and France combined, as illustrated in Figure 7.



Figure 7: Ireland's collaboration on academic papers 2012-2016 per country. Source: Elsevier SciVal

Brexit is also likely to seriously disrupt patterns of research collaboration across the EU. Here there will be particular problems for Irish HEIs. UK and Irish researchers collaborate extensively, especially under EU programmes. There are currently over 900 collaborative links between Irish and UK researchers under the Horizon 2020 programme. UK research partners are involved in 13.4% of all projects that include Irish partners in Horizon 2020, making the UK Ireland's closest and strongest research partner country in the EU.

Brexit therefore poses very real risks to Ireland's position in the 'Europe of Education'. Much depends on the precise terms of Brexit and how the UK's future relationship to European integration is conceived. The UK research community understandably does not want to lose access to EU research funding, which is pivotal to its research reputation; the political stakes are thus high in Brexit negotiations over education and research. Naturally there are also concerns among the Irish research community, given that the UK is our number one collaborator on research grants and papers. For example, if the UK is unable to negotiate some form of associate membership of H2020 and other EU research programmes, then Irish researchers will have to seek new partnerships elsewhere across the EU after Brexit. The challenges and costs could be high.

Sleepwalking into Brexit is not an option. The educational fallout from Brexit is already under way. The prospect of participative ineligibility of UK researchers in EU research framework programmes after 2019 is, according to anecdotal evidence, already prompting EU researchers to exclude UK-based research groups from consortia inclusion in H2020 applications due to uncertainties about their status after Brexit.

Strong educational leadership is needed in this period of uncertainty if Ireland is to capitalise on any opportunities emerging from Brexit by (re–) positioning itself in the European education market. Here there are hard choices to be made at all levels of the higher education and research system. Many institutions in the UK and across Europe are already planning for Brexit. Ireland too must mobilise its resources with a minimum of delay to take advantage of the strategic opportunities presented by Brexit – to explore innovative ways to sustain its research partnerships in the UK and at the same time pursue a growth strategy in Europe.

Launch of University for All at UCD



At the launch of 'University for All' in the UCD Access and Lifelong Learning Centre on 30 Nov 2017 (I-r) Minister of State for Higher Education Mary Mitchell O' Connor, UCD Registrar Professor Mark Rogers and Director of Access and Lifelong learning Dr Anna Kelly.

New Impetus for Language Learning in Ireland

Why Language Learning is valued by Universities



Dr Attracta Halpin Registrar, National University of Ireland

anguage learning in Ireland has received fresh impetus through the launch of a range of initiatives in April 2017, as part of Government's ten-year Action Plan for Education. In this article, Dr Attracta Halpin discusses the many reasons why language learning is valued by universities and the importance of universities catering within their overall educational strategies for the broad spectrum of student needs in the area of languages. The languages of classical antiquity were at the heart of the medieval universities and continued to be primary areas of scholarship until the 19th century. Since then the focus in higher education has broadened, to include a range of modern languages and their associated literatures and cultures. Language learning is valued by universities for its intrinsic intellectual and educational value; as a gateway to cultures other than our own; as a means of deepening intercultural understanding; and ultimately of heightening our awareness of what it means to be human. Universities today also recognise the practical economic benefits of language skills as a means of communication. In a globalised world, with increased travel, trade, services and communications across language borders, even allowing for the emergence of English as a global language, proficiency in a language or languages other than English has been seen to have grown significantly in importance.

The languages of Europe are important in the context of our EU membership, while growing markets particularly in Asia strengthen the claims of other languages, such as Chinese, for attention on our educational system. This new government impetus for the study of modern languages throughout our education system is therefore timely and appropriate. Particularly in higher education, it will provide encouragement for universities to review and refine their approaches to language provision. A broad spectrum of needs has been identified among university students ranging from those who wish to study languages and literature from bachelor's degree up to the highest levels of scholarly research, and who traditionally have been the major concern of language schools and departments to those across the range of disciplines who are interested in, and would benefit from, acquiring varying levels of language proficiency. The universities have a major role to play in catering for these varying needs in the context of their overall educational strategies.

NUI has a long and proud history of valuing the study of languages and of supporting and rewarding language learning and language-related scholarship and research. Awards from undergraduate to

post-doctoral level are made across the range of languages studied in the NUI universities, where language study has always featured prominently. These awards are funded through bequests from private donors, with additional funding coming from NUI's own resources. NUI is also fortunate to enjoy the support and collaboration of the French, and more recently Spanish, Embassies in rewarding proficiency in those languages. In the five-year period from 2012-2017, over 150 students from first year to post-doctoral level in the NUI universities will have benefited from awards in the form of travelling studentships, fellowships, scholarships, prizes and medals. At the end of 2017, NUI awards relating to languages will have a total value nearing €272,000. These awards have focused on the languages of Europe, including Irish. In preparing its next strategic plan, NUI will consider their extension to the other languages now taught in the constituent universities.

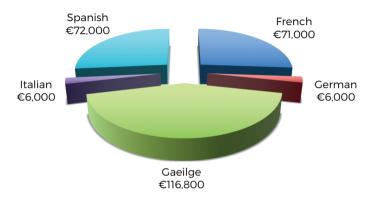


Figure 1: NUI language and related awards 2012-2017 and monetary values. Source: NUI Statistics

NUI's constituent universities – UCD, NUI Galway, UCC and Maynooth University – provide Irish society with the majority of its language graduates and accordingly of teachers of languages at second level. In 2016, almost two thirds of those graduating in languages across all Universities, Colleges and Institutes of Technology came from NUI institutions: 290 from a total of 454.¹ The numbers graduating in languages are comparable with those graduating in highly popular subjects such as Psychology, Management & Administration and Biology, indicating continuing strong interest among third-level students in studying languages.

Reflecting the value placed by NUI on languages, the University has always included language requirements for matriculation, being alone in requiring Irish. This has provided a major incentive for language learning at second level. As an aside, it may be noted that NUI will accept any language studied at Leaving Certificate or equivalent level as meeting its 'third language' requirement. Increasingly the need for a language for matriculation has

NUI will accept any language studied at Leaving Certificate or equivalent level as meeting 'third language' requirement.

Source: HEA Statistics www.hea.ie/statistics. The ISCED (International Standard Classification for Education) field of study used is 0231: Language Acquisition. This definition includes graduates of language degrees only, including classical languages. It does not include graduates of joint degrees where a language is a component subject or teaching awards with subject specialisation in languages.

been challenged in the context of widening participation and greater diversity in the student body and also with growing national emphasis on mathematical and scientific knowledge and competence. Accordingly, in recent years, acting on the recommendations of the Academic Councils of the constituent universities, NUI has removed the requirement for a third language for entry to degrees in science, engineering and a number of other specified areas.

While a third language is no longer a general matriculation requirement. this should not be taken as an indication of a lessening of commitment to the study of languages at different levels. The NUI universities have broadened the range of languages available and are increasing their efforts to provide 'elective' opportunities for students to study a language and to have to access a range of levels and credit volumes of language learning, irrespective of their chosen degree subjects. This will make a major contribution to government's plan to support 20% of the entire Higher Education cohort to study language as part of their course.² It gives effect to the 2011 Royal Irish Academy (RIA) recommendation that institutions should be "encouraged to exploit the capacity for, and to build space into programmes for students to pursue language subjects which, while possibly outside their specialist fields, may well be of interest due to their educational, social, personal and economic value".³ It is also consistent with the view expressed by the Irish Business and Employer Confederation (IBEC) during the 2014 consultation on foreign languages in education that "there is a clear need for languages in business, but the requirement may not always be for a very high level of proficiency." 4

The National Employers Survey in 2015⁵ found that approximately a quarter (25%) of all employers surveyed indicated that they had a specific requirement for foreign language proficiency skills in their organisation, noting that 60% of this cohort required at least full professional proficiency in their graduate recruits. Enabling graduates to achieve this level of proficiency is resource intensive, requiring the expertise of qualified academic lecturers, language assistants and indeed facilities and technological support. Possibilities of extended periods abroad through Erasmus+ are also a major support.

In the context of Brexit, the global rise of "non-Western powers", and the strength of Ireland's immigrant communities⁶, the Irish government is now challenging the apparently widely-held belief that "English is enough". Similarly, there is evidence of growing concern in Britain at the damaging consequences of Brexit for the language skills of its citizens.⁷ However, sustaining a public discourse in Ireland about the wide benefits

- https://www.education.ie/en/Press-Events/Press-Releases/2017-Press-Releases/PR17-04-19.html
- 3 Royal Irish Academy "National Languages Strategy", 2011: 12.
- 4 IBÉC "Submission on a foreign languages in education strategy for Ireland", 2014: 8. See: https:// www.ibec.ie/IBEC/DFB.nsf/vPages/Education_and_training~Policy_positions~foreign-languages-ineducation-04-12-2014/\$file/Foreign%20Languages%20Strategy_lbec%20submission.pdf
- 5 See page 10 of the Survey, accessible at: http://hea.ie/assets/uploads/2017/06/National-Employer-Survey.pdf
- 6 See: https://www.education.ie/en/Press-Events/Press-Releases/2017-Press-Releases/PR17-04-19. html
- 7 See https://www.britishcouncil.org/education/schools/support-for-languages/thought-leadership/ appg/news/brexit-languages accessed 22 September 2017

A quarter of all employers surveyed indicated that they had a specific requirement for foreign language proficiency skills in their organisation. The integration of the Modern Languages in Primary Schools Initiative into the mainstream would mark a significant step forward.

Since its foundation in 1908, the NUI has sought to encourage, recognise, and promote scholarship in the field of language learning. of language learning is challenging. While Ireland is a signatory to the EU Council's 2002 objective for proficiency in "mother tongue + 2" (2002 Barcelona EU Council:19), in a 2012 Eurobarometer survey on Languages in Europe, Ireland (with Denmark) ranked lowest at 51% of respondents⁸ compared with the 72% of Europeans who supported the idea of "learning more than one language other than their mother tongue". Whether a university student in Ireland considers his or her mother tongue to be Irish, English, or in the case of immigrants to Ireland, their heritage language, this survey finding illustrates the efforts that will be required across the education sector, with government and other agencies, to increase public enthusiasm for language learning and appreciation of its benefits.

In this context, NUI strongly supports the government's commitment that all Irish Junior cycle students will study a foreign language by 2021. While a high proportion of post-primary students currently study a third language, predominantly French, this new government commitment marks a significant public policy shift towards the necessity – as opposed to the desirability – of plurilinguistic competence among a higher proportion of the population than at present for the future of Irish economy and society. The integration of the Modern Languages in Primary Schools Initiative (MLPSI) into the mainstream curriculum would mark a further, significant step forward.

Since its foundation in 1908, the NUI has sought to encourage, recognise, and promote scholarship in the field of language learning. Sustaining this tradition is a continuing belief in the intellectual, cultural, social and economic benefits gained from the acquisition of languages other than the mother tongue. In contemporary conditions, the constituent universities of the National University of Ireland are adopting broader approaches to language learning and encouraging language acquisition at different levels of language proficiency. At the same time, they are committed to supporting scholarship and research in languages and literature up to the highest level.

We welcome the renewed focus on foreign languages in second- and thirdlevel education, emerging from government policy and student motivation and interest. We look forward to further developing our contribution and collaborating with interested parties, in a renewed national and European policy environment for languages over the coming years.

⁸ See: Special Eurobarometer 386 "Europeans and their languages" (June 2012); accessible at: http:// ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs_386_sum_en.pdf

Demographic Trends

Possible Solutions to Urgent Higher Education Access Challenges





Dr Fiona O'Riordan Training and Education Faculty, Griffith College Dublin

Professor Diarmuid Hegarty Chairperson of HECA

n response to the conclusion in the Cassells Report that the current Higher Education system is unsustainable, this year's HECA conference focused on ways in which the sector might change in order to meet the urgent challenge of vastly increasing numbers without compromising the quality of the learning experience for students. This year, the Higher Education Colleges Association (HECA) organised its annual conference to address the challenge of provision for the projected increase in students accessing Higher Education over the next 10 years. The conference title was 'Demographic Trends: The Urgent Agenda of Higher Education Access'.

Background

By way of context, HECA was established in 1991 to represent the independent third level sector on a variety of HE topics. HECA proactively engages with higher education (HE) stakeholders such as Higher Education Authority (HEA), Quality and Qualifications Ireland (QQI), the Department of Education and Skills (DES), and the National Forum for the Enhancement of Teaching and Learning in HE nationally, as well as seeking to deliver on the objectives of the European Higher Education Area (EHEA) internationally.

The establishment of the European Higher Education Area (EHEA) impacted on the HE sector in many different ways including a call for all EHEA members to develop a national action plan for wider access and lifelong learning. In 2004 the HEA produced an ambitious national plan setting out targets and goals to be reached in order to improve HE participation. Particular attention was given to Ireland's poor performance with regard to access for mature students and students with disabilities.

Ireland experienced similar difficulties to other EU countries in terms of achieving equity of access in HE. Today, the HEA remains firmly committed to the ongoing agenda of promoting wider and equitable access to HE. This commitment, combined with a peak of births in Ireland in the 1980s, has led to a situation where HE demand exceeds current provision. This is dubbed the 'Cassells Bulge' by this co-author (Diarmuid Hegarty) and this was the term I used in my opening address at the 2017 HECA conference.

Cassells Report

The Cassells Report, officially titled 'Investing in National Ambition', calls for additional annual core funding of $\in 600$ million by 2021, and $\in 1$ billion by 2030, to meet the increased demographic demand for

The HECA 2017 Annual Conference offered an opportunity to discuss and explore possible solutions on how to practically address the access challenges identified in Cassells report.

Beausang recognized the need to find a robust, sustainable, equitable and predictable longterm funding model that was cognisant of finite resources. HE. In addition, there is a requirement for \leq 5.5 billion in capital funding and \leq 100 million to underpin an effective system of student financial aid (2016, p.7). Furthermore, the Report's Authors state that the sector cannot continue in the current status quo mode because the system will continue to deteriorate. In an interview with the College Tribune in July 2016, Minister Bruton said he believed the solution could be found through a political system built on consensus and he called for a debate to advance possible solutions.

Possible Solutions

On the basis that the current system is unsustainable, as acknowledged in the Cassells Report, the question is how is the sector to change in order to meet the urgent agenda of HE access without compromising the quality of experience for learners. The HECA 2017 Annual Conference offered an opportunity to discuss and explore possible solutions on how to practically address the access challenges identified in Cassells report. Peter Cassells was keynote speaker on the day and he set the context for subsequent contributions. He did so by presenting the volume and timing in which the additional demand for third level places will present over the period 2018 to 2028. In addition he provided a summary of conclusions arrived at by the Expert Group as to ways in which the excess demand could be met. He stressed that a quality HE experience for learners offers the potential to generate '…positive economic, social and cultural outcomes' through developing informed and engaged citizens.

William Beausang, Head of Central Expenditure Policy Division in the Department of Public Expenditure and Reform, called for new and innovative models and mechanisms for meeting the economy's HE and FE needs. He drew attention to the juxtaposition of increased student numbers from 150,000 to 190,000, and reduced staff numbers by 15%, resulting in increased student to staff ratio from 16.1 to 20.1 over the last ten years. This is of concern, given the views of the Expert Group in the Cassells report regarding the need for Ireland to provide a quality HE experience in order to attend to the collective and individual good of Irish citizens. Beausang recognized the need to find a robust, sustainable, equitable and predictable long-term funding model that was cognisant of finite resources.

Conference speakers focused on ways of expanding full-time provision other than through the traditional full-time offerings, and in particular on new and innovative learning approaches. The following alternative learning contexts were among those envisaged:-

- » Online learning
- » Blended learning
- » Part-time provision
- » Geographically distributed provision
- » Apprenticeships and
- » Progression Pathways from Further Education

Scalability

Brian Mulligan from the Centre for Online Learning in IT Sligo shared some thought-provoking comments and ideas on possible efficiencies in the national HE spend, in particular the ability for technology to address capacity and costs. He was concerned that given the limited resources available to government the totality of the problem could not be addressed by simply throwing substantial additional funds into full-time provision. He urged the audience, and policy makers, to consider the notion that excellent learning does not necessarily have to be in a college setting; he proposed scalability through elearning allowing investment in producing learning resources and tools. Mulligan contends that scalability should not be something HE providers are fearful of and claims it is a myth that scale can be damaging. In his experience, technology (i.e. online learning) can and does reduce costs through scalability. Furthermore, he suggested that students are actually 'blending' themselves through their use of online resources, such as YouTube, Wolfram Alpha and Wikipedia, to learn.

Apprenticeship

Mulligan also considered apprenticeship and work based learning models. Tony Donohoe of IBEC picked up this theme by exploring the role apprenticeship programmes can have as part of the solution, although he did highlight some challenges associated with this model that must be overcome first. These include bureaucratic processes, institutional structures, outdated legislation, education silos and traditional views of the level of educational attainment associated in the public mind with apprenticeships. Donohue pointed out that the number of apprenticeship places actually created to date was well short of expectations and targets set by the Department of Education and Skills. This underlined the urgency of addressing these challenges in order to advance this part of the mix.

Overcoming Barriers

Dr Justin Rami, DCU Institute of Education, presented findings from collaborative research conducted to identify barriers of access and progression from FET colleges to HE institutions. Rami stated that PLC programmes are designed specifically to include the preparation of learners for progression to HE. However, the research found that barriers exist for PLC learners progressing. To help overcome barriers, recommendations from this research include standardization of requirements sought by HE institutions, simplification and communication of pathways from FET to HE in order to build capacity between both sectors. In particular, the research findings call for more equitable and transparent pathways to be identified and communicated to the different socio-demographic groups seeking to access this model of HE.

24,000 Additional Places

The final presentation at this session was by Dermot Douglas who shared research undertaken by the independent sector showing how they could provide an additional 24,000 places over the next ten years. These 24,000 places are in addition to the current provision of approximately 15,000. Douglas proposed that this additional provision can be undertaken by the independent sector in a cost-effective way using multiple modes of delivery including traditional full and part-time, blended and online, off

Conference speakers focused on ways of expanding fulltime provision other than through the traditional fulltime offerings and, in particular, on new and innovative learning approaches. Online learning can and does reduce costs through scalability - Brian Mulligan peak and distributed, and apprenticeship models. It should be stressed that these additional places would be neither required nor provided in the immediate future but rather on a progressive basis over the 10-year horizon period from 2018 to 2028.

Inhibitors

Douglas shared insight into significant inhibitors, which included new QQI course validation process which was seen to require some degree of rationalisation, streamlining and speedier implementation; lack of availability of grants to students in the independent sector; and a dearth of availability of rental space in the current market. He continued by recommending enablers, one of which is to seek better alignment of the requirement of QQI and Professional Bodies to minimise duplication of effort.

To facilitate quality enhancement of capacity in private providers, a HECA-commissioned teaching and learning resource was launched at the conference.

Conclusion

It is obvious that this conversation between stakeholders needs to continue. It is also clear that if HE stakeholders wait too long to actively implement solutions, the weight of the consequent burden may become unsustainable.



Pictured (I-r) at University College Dublin are three of the twelve TEDxUCD 2017 speakers;

Colin Keogh, award-winning engineer, consultant, lecturer and innovator, currently completing a PhD in the UCD School of Mechanical and Materials Engineering. His TEDxUCD 2017 talk is titled 'Helping people help themselves: technology enhanced global development'.

Dr Bahareh Heravi, data and computational journalism lecturer, trainer, practitioner and innovator at UCD's School of Information and Communication Studies. Her TEDxUCD 2017 talk is titled 'How is data journalism changing the newsroom?'

Dominic O'Connor, a Marie Curie Research Fellow at the CATCH Innovative Training Network (ITN) and a PhD student in UCD's School of Public Health, Physiotherapy and Sport Science. His TEDxUCD 2017 talk is titled 'How can neuromuscular electrical stimulation (NMES) help accelerate cancer rehabilitation?

Philanthropic Funding

The National University of Ireland



Dr Maurice Manning Chancellor, National University of Ireland

r Maurice Manning looks at the benefits for universities of philanthropic funding which - when married with public investment - allows them to go that extra mile and to create cutting-edge infrastructure and compete on the world-stage. In planning strategically for the future, political decisions are needed on the extent of the Irish state's contribution to funding our higher education system. However, if the system is to be enabled truly to deliver for our students, for Irish research and Irish society, the decisions on funding must acknowledge that mixed funding regimes are the norm across most higher education systems globally¹ and that an element of private funding will be essential to the wellbeing of Ireland's universities and colleges. It is not a question of private funds replacing the public purse for essential public provision, but of complementarity to enable strategic goals to be met in a sustainable way.

The National University of Ireland (NUI) today is a federation of four, autonomous universities: University College Dublin (UCD), NUI Galway, University College Cork (UCC) and Maynooth University (MU); and two recognised Colleges, the Royal College of Surgeons in Ireland (RCSI) and University. We represent a majority of the total student body in the Irish sector and we are proud of our national and international reputation for quality teaching and learning; research and scholarship and economic, social and cultural impact.

The 2016 Cassells' report into the future funding of Irish HE² estimated that €5.5bn capital investment would be needed over the 15 year period from 2016 onwards, simply to meet student-related teaching and learning requirements in terms of buildings and supporting technological requirements. It is clear from current state capital spending plans that exchequer investment alone will not come near this sum. As the Joint Oireachtas committee on Education and Skills continues to consider the findings and recommendations of the Cassells' report, it is timely to remind ourselves of the major benefits already gained by NUI students, academic faculty and staff by virtue of private donations to our universities and recognised colleges.

¹ https://www.education.ie/en/The-Education-System/Higher-Education/ Higher-Education-Review-of-International-Funding-Models.pdf

² https://www.education.ie/en/Publications/Policy-Reports/Investing-in-National-Ambition-A-Strategy-for-Funding-Higher-Education.pdf

NUI's constituent universities and the Royal College of Surgeons in Ireland owe an enormous debt of gratitude to the extraordinary generosity of Irish-American Chuck Feeney. NUI's constituent universities and the Royal College of Surgeons in Ireland (RCSI) owe an enormous debt of gratitude to the extraordinary generosity of Irish-American Chuck Feeney through his charitable foundation, Atlantic Philanthropies (AP). The total financial contribution of €231.5M³ into NUI institutions' capital funding programmes enabled major advancements, and Chuck Feeney's remarkable legacy provided a very tangible base for future success and development funded by new benefactors who have since responded to the considerable efforts of the universities and their Foundations. It must be acknowledged that these successes are hard won. Funding from private donors ranges from hundreds of small, but annual, contributions made by hundreds of alumni on foot of alumni campaigns, to the large, one-off "lead gifts" made by high net-worth individuals. Regardless of the amount, attracting and sustaining private funding happens as a result of significant university resources invested in alumni relations offices and charitable foundations, deploying sophisticated marketing techniques and the development of legal, financial and technical expertise. Success also requires expertise from outside of the institutions themselves, typically via the Boards of university foundations - comprising individuals with a range of business, industry, financial, social and cultural expertise.

At a strategic level, it is undoubtedly when collaborative initiatives between private benefactors, state capital grants and competitive research funding come to fruition that major impact on the strategic development of a university can be demonstrated. In 2013, UCD opened the O'Brien Centre for Science, a world-class facility for teaching and research across



The O'Brien Centre for Science at UCD (photo: courtesy of UCD)

³ Source: Laying Foundations for Change: Capital Investments of the Atlantic Philanthropies: Compendium. 2014

Denis O'Brien, Irish business man and entrepreneur, provided the lead "gift" for the [O'Brien] Centre for Science at UCD. many of the university's broad-ranging science subjects. Denis O'Brien, Irish businessman and entrepreneur provided the lead "gift" for the centre; one of a number of gifts from a range of private benefactors whose names are displayed on the wall of the impressive atrium. On a day to day basis, the scientists in this centre are competing – and winning – research contracts from national and international programmes that require full use of the centre's facilities and equipment.

Orla Tighe, Director of UCD Foundation, comments that, "Private funding allows us to go that extra mile and to create cutting-edge infrastructure that can compete on the world-stage. It is crucial to allow the university to leverage vital funding from government and to deliver on bold plans". This point – that private funding works best when married with public investment – is clearly made in the National Strategy for Higher Education to 2030 (HUNT report), which states that "any credible effort to expand the role of philanthropic funding is critically dependent on the continuation of sustained public investment – this reassures potential benefactors that they are funding additionality rather than replacing an exchequer contribution". 4

UCC's Plus Programme for disabled students is majority-funded by UCC friends and supporters. Private funding also benefits students directly by enabling scholarships and support programmes, such as University College Cork (UCC)'s Plus programme for disabled students. This flagship programme is majorityfunded by UCC friends and supporters. UCC is particularly proud of the range of technology and other supports provided for students with physical and intellectual disabilities. Dr Jean van Sinderen-Law, Director of UCC's Development and Alumni Relations explains:



Séamus and Marie Heaney viewing the Great Book of Ireland, which was restored at University College Cork (photo: copyright UCC).

⁴ National Strategy for Higher Education to 2030 (HUNT report) (2011); page. 117.

As part of its approaching 21st birthday as an NUI university, Maynooth is now launching its Annual Giving campaign... the primary purpose of which will be to fund access bursaries and scholarships...

Since its establishment in 1998, Galway University Foundation has raised €145 million directly from philanthropy, leveraging additional matching funds. "For us in Cork, it's about more than buildings – we have used gifts from generous individuals to restore and promote items of cultural heritage, the Great Book of Ireland being a recent prime example. Crucially, the generosity of our alumni and friends makes it possible for us to provide best-in-class financial supports for students who have made it as far as university in spite of disadvantages arising from disabilities and other constraints".

Maynooth University also highlights the growing link between private funding and an enhanced student experience. As part of its approaching 21st birthday in 2018 as an NUI university, Maynooth is now launching its Annual Giving campaign. While also funding other projects of strategic importance to the university, the primary purpose of the Annual Giving programme will be to fund access bursaries and scholarships, and specifically to help support students like Leon Diop.

Leon graduated in autumn of 2017 with a degree in Psychology and is the first in his family to attend university. Serving as the new 2017-18 President of Maynooth Students' Union, his campaign centred on social justice issues. He grew up in a one-parent family, the son of an Irish mother and a Nigerian father, and attended St Mark's Community School in Tallaght where his guidance counsellor encouraged him to apply to university through the Higher Education Access Route (HEAR) scheme.

Since its establishment in 1998, Galway University Foundation has raised over €145 million directly from philanthropy, leveraging significant additional matching funds, thus enabling over €200 million of investment for flagship university buildings. In 2017, the university opened the O'Donoghue Centre for Drama, Theatre and Performance, a €5.5m investment to transform a former limestone 19th century textile mill, into a state-of-the-art theatre facility for NUI Galway drama students, including Ireland's first LED theatre lighting system. The Centre recently scooped the winner of the Public Choice award at the 2017 RIAI Irish Architecture Awards.



NUI Galway's O'Donoghue Centre for Drama, Theatre & Performance (photo: courtesy NUI Galway).

Maynooth University is proud to have the highest percentage of students from disadvantaged and underrepresented populations of any university in Ireland at 30%, and the highest proportion of students in receipt of a grant in the university sector, at 49%. Securing additional private funding will further enable Maynooth to provide world-class supports and services to these students.



Maynooth University Access students (photo: courtesy Maynooth University)

Our universities and colleges must be enabled and encouraged to seek additional funding from private sources, both in Ireland and elsewhere. As Ireland's Higher Education sector embraces record student enrolment in the decade to come, and continues to attract highly competitive research funds globally, we must collaboratively support the efforts of our institutions to diversify their funding sources and enhance and ensure quality. NUI is proud of the work of its constituent universities and colleges in attracting substantial funding to complement that provided by the State. We believe that the government must continue to provide substantial funding for higher education. However, while acknowledging the need for a robust regulatory framework, in a growing sector our universities and colleges must also be enabled and encouraged to seek additional funding from private sources, both in Ireland and elsewhere. This is essential if higher education is to enjoy the levels of investment necessary to remain internationally competitive. If we get the balance right, Ireland will be able to provide, for its growing population, education and research opportunities at a level comparable to those available in other countries at a similar level of development, and higher education will make a full contribution to social, economic and cultural advancement.

A Renewed Technological Focus in Education and Training

Developments in Technological Higher Education



Dr Joseph Ryan CEO, Technological Higher Education Association

his contribution from Dr Joseph Ryan, the inaugural CEO of the Technological Higher Education Association traces the progress in technological higher education in 2017. He looks in particular at income-contingent loans, a path outlined in the Cassells report on funding. The past year has proved momentous for the technological sector in Ireland. 2017 saw the emergence and formal launch of the Technological Higher Education Association (THEA) as the representative and advocacy body for all institutes of technology in the state. It replaced a legacy body, Institutes of Technology Ireland. After dissolution of IoTI, the new body was created through a voluntary association of the thirteen institutes of technology that had comprised IoTI and the Dublin Institute of Technology, which operates under separate statute. THEA was formally launched by the Minister for Education and Skills, Richard Bruton TD, in early April 2017.

There has been a strong and generous welcome for the new body, which has emerged at a most interesting time in the history of higher education (HE) in Ireland. The sector is negotiating major challenges, at a time when it is weakened by the entrenchment occasioned by the economic crisis. The scale of the impact on higher education has been often rehearsed. The system has moved from 20 per cent participation in 1980 to the massified system of today, which accommodates 60 per cent of the age cohort. But that growth has come at a price: core funding per student fell 22 per cent in the seven years to 2015.

At one level, the mass participation has given Ireland competitive advantage. The OECD reports that attainment at higher education level (whether university or other) was particularly high among 25-34-year olds in Ireland, at 52 per cent (the OECD average is 42 per cent). But Ireland's advantageous population profile has had consequence for relative spending on education. Using OECD figures from 2013, Ireland's expenditure on education, public and private, was 5.2 per cent of GDP, but proportionately more of this goes towards pre-HE levels, with expenditure on HE in Ireland being 1.2 per cent of GDP in 2013 – below the OECD average of 1.6 per cent. This manifests as a loss of staff, an increase in students, and a pupil-teacher ratio now around 1:20 compared to the OECD average of 1:17. The recent review of future funding for HE voiced concern over the danger of a negative quality impact.

The system has moved from 20 per cent participation in 1980 to the massified system of today, which accommodates 60 per cent of the age cohort. But that review and 2017 have also held promise. Recovery has been flagged, and higher education has seen additional monies being devoted to the system. Its scale is modest compared to the identified needs, but the trajectory is positive and the budget statement in 2017 gives further promise of both capital and current injection into higher and further education. The year has also seen consideration of the findings from the Expert Group on the Future Funding of Higher Education, chaired by Peter Cassells, which reported in March 2016. The full title of the report refers to investing in national ambition, which is an admirably succinct summary of the necessary intention. The estimate here is that additional monies to the tune of \in 600 million by 2021 and \in 1 billion by 2030 are required if Ireland is to maintain and enhance its reputation as an educational centre and continue to catalyse economic growth.

Concentration has predictably focused on the three paths outlined in the Cassells report to securing the monies required to fuel such a sustainable infrastructure. Whether one should look at the options in isolation or together is moot, but the concentration has – again inevitably – fallen mainly on the prospect of introducing income-contingent loans. Underlying this are the principles that the individual beneficiaries of a publicly funded higher education might contribute something to their education and training, but that that contribution should not represent a barrier to accessing the system. Effectively this represents a deferred fee for higher education.

The debate over income-contingent loans has attracted considerable attention and has been contentious. That it would represent a momentous cultural change is not the least of the challenges. The technological sector has been represented as inimical to income-contingent loans and even, by extension, as being against a universal student contribution. This is too simplistic a reading. Given its presence throughout the country, the technological sector caters for students from all socio-economic backgrounds, but it would not be unreasonable to say that compared to the traditional university sector, it accommodates proportionately more from the lower and lower-middle socio-economic classes. In doing so, the sector has been instrumental in offering access to opportunity for so many, and with a geographical reach across the land.

At one level, the mass participation has given Ireland competitive advantage. A further point worth weighing is that with the increasing diversity of the Irish population, the technological sector is playing a commendable (if largely unrecognised) role in the assimilation of new communities and thus in the cohesion of Irish society. Our THEA institutions have noted in recent years, as the fee contribution reached its declared ceiling of \in 3,000 per annum, that more students and their families were reporting this to be a burden, and the experience of member institutions was that this was becoming a barrier to entry. To the students and families concerned, the student contribution was but one element in a basket that included accommodation, travel, living expenses, material and other sundry costs which, taken together, represented a considerable demand. Allied to this

was the expectation that access to higher education was now the default path, not just for one dependant but for all children in a family.

THEA is not against a form of learner contribution, but the amount and mode of that contribution should not represent a regressive barrier to access. In the light of this lived experience, the Council of THEA, comprising the presidents of the fourteen institutions, the chief executive, and an independent chair, has sought to foreground the potential impact on access in this debate. The perception of Council is that international experience, and modelling of income-contingent loans in an Irish context, suggest that such a departure should be explored carefully before such a decision is taken, because the indications are that this will be more expensive and carry an administrative burden to a degree that warrants deep consideration. For clarity: THEA's position is not against a form of learner contribution; but the amount and mode of that contribution should not represent a regressive barrier to access.

The speech delivered by An Taoiseach, Leo Varadkar TD, at the symposium on 26 September 2017 marking 425 years since Trinity's foundation, noted that 'the issue of third-level funding is one of our great challenges'. He continued, 'the government is committed to putting in place a sustainable multi-annual funding base to cater for the continuing demographic expansion of the higher education sector, while at the same time protecting and improving its quality'. The Taoiseach said that some contribution from students (as currently exists) is warranted, given the private and public benefits from higher education, but that he 'could not stand over an outcome that left Irish students graduating with the kind of debts that American and English ones do'.

The increase to the National Training Fund mentioned in the Taoiseach's speech, and formally announced on 10 October 2017 in the budget statement by Paschal Donohoe TD, the Minister for Finance and Public Expenditure and Reform, is welcome, but it suggests we have some way to go to agree an equitable and sustainable funding model for higher education, which is likely to be some blend of the options proposed in the Expert Review on Future Funding.

Another reason for optimism is the structural changes that are now proposed in technological education and training. Considerable advance has been made this year towards creating Technological Universities. This is a tale with a long gestation, with its genesis in the recommendations from the National Strategy for Higher Education to 2030 published in 2011. That strategy noted the progress and maturity of the institutes in the technological family and envisaged their evolution into a 'smaller number of stronger amalgamated institutes [that] should be promoted in order to advance system capacity and performance'. Not all institutions or their regions will elect such a path, but those that have committed to exploring this option have undertaken considerable work that has won support from stakeholders, both internal and external.

The proposed Technological Universities Bill has now earned enough political support to suggest we can look with confidence to 2018 as the year that will deliver significant progress in this regard. The advent of Technological Universities will add to the commendable diversity in our small higher education sector. The anticipation is that these new dynamic

The Taoiseach 'could not stand over an outcome that left Irish students graduating with the kind of debts that American and English ones do'. entities will prove seminal in enhancing cooperation with enterprise, in advancing standards, and in supporting the broad regions in which they will be centred. Technological Universities will also have a scale that can win greater international recognition and thus add to Ireland's reputation as a high-end educational provider. They can also advance the burgeoning cooperative work that is forging better continuity and pathways between higher and further education.

The advent of Technological Universities will add to the commendable diversity in our small higher education sector. The prospect of such a significant change to the higher education landscape requires considerable discussion and preparation. Ireland's technological education provision is a broad church, not just covering the obvious STEM areas but playing a critical role in supporting the cultural richness of our society, in delivering both plastic and performing arts. The advent of the Technological University must be realised in a manner sensitive to those institutions that elect to serve their communities and regions in other constructs. Equally, the staff who will be required to deliver upon this brave new world, and their representative organisations, are actively cocreating this future. It is a future that will complement existing provision and can offer enhanced opportunity for future generations of learners.

NUI Galway Launches Community-led Sustainability Strategy



On 15 November 2017, NUI Galway launched a wide-reaching Sustainability Strategy setting out a vision to establish NUI Galway as a leading green, smart and healthy campus. The university already has a groundswell of research, events, activities, societies and building initiatives which are related to sustainability. It offers almost 200 courses covering environmental and/or sustainability issues, and has won the top award for most biodiverse campus at Ireland's Intervarsity BioBlitz competition. Earlier this year it announced plans to divest from fossil fuel shares.

Pictured at the launch of NUI Galway's Sustainability Strategy are I-r: Professor Pól Ó Dochartaigh, Registrar and Deputy President, NUI Galway, Dr Frances Fahy, School of Geography and Archaeology, NUI Galway, Senator Alice-Mary Higgins, Seanad Éireann and Professor Colin Brown, Ryan Institute, NUI Galway.

Meeting the Challenges for the Social Sciences in Ireland

Distinctiveness, Research, Education and Engagement



Professor Colin Scott

Vice President Equality Diversity and Inclusion, Principal UCD College of Social Sciences and Law, Dean of Social Sciences University College Dublin

I am indebted to my colleagues Maria Baghramian, Bryan Fanning, Eilis Hennessy, Imelda Maher, Sara O'Sullivan and Sarah Prescott for comments on an earlier draft of this piece. I remain responsible for the content.

Professor Scott discusses the challenges that the social sciences face, as a field of education and research in Ireland: to be better known as a distinct field of knowledge; to sustain and develop vital research; to enhance social sciences education; to ensure effective engagement between the social sciences and wider society.

The Social Sciences

The social sciences transform our understanding of societies: how they function, how they are governed, how we work, how and where we live, how we communicate, how we learn and so on. Ireland was among the earliest testing grounds for new approaches to collection and analysis of data to understand economic development and to support the implementation of policies. Notably Sir William Petty's Irish projects in the second half of the 17th Century¹ anticipated the Scottish enlightenment of the 18th Century and the statistical revolution in government in the 19th.

This revolution combined the normative imperative to address 'social evils' with the technology to understand their scale and scope. It did this through institutionalising capacity and processes for collection and analysis of data enabling assessment of the effects, positive and negative, of governmental and other interventions for modern societies.² These changes underpinned both the growth and the differentiation of the social sciences from humanities and from early political economy. Today, the capacity for collecting and analysing data, and acting on it to improve society, is a core competence of the modern state.³ The social sciences include a range of core academic disciplines which overlap in some of the skills they use and teach whilst also being concerned with distinct domains of knowledge vital to understanding human societies, cultures and economies. These include separate but interdependent specialisms - such as economics, geography, politics, psychology and sociology whose collective contribution can be greater than the sum of their individual parts.

¹ Fox, Adam. 2009. "Ireland and the Making of a Political Economist, 1653-87." Economic History Review 62:388-404.

² McDonagh, Oliver. 1958. "The Nineteenth-Century Revolution in Government: A Reappraisal." The Historical Journal 1:52-67.

³ Scott, James C. 1998. Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed. New Haven: Yale University Press.

The focus of the social sciences on the study of individuals, human society and social relationships ranges between the micro-level (for example, understanding the conditions under which families and their members either thrive, or where family relationships break down through mid-level concerns, with how organisations such as clubs, firms and government agencies function and affect both our economic development and our social bonds) through to macro-level concerns with why people vote the way they do, what causes economic growth – and financial busts – and how the behaviours which cause climate change can be addressed.

Within the social sciences it is commonly asserted that this range of concerns - and many others - is inter-related in understanding how our societies function. A central aspect of the social sciences is a concern for observation and rigorous methods of understanding social phenomena. These methods use both quantitative data, particularly, but not limited to, social and economic statistics, and also qualitative methods such as interviews and participant observation, to seek stronger understanding of why societies have developed as they have and with what effects. Research in sociology has critical, policy, public and professional strands.⁴ In the social sciences more generally, critical approaches, looking to normative ideals, challenge taken-for-granted assumptions. In contrast policy research tends to work within accepted paradigms to better understand social phenomena and to evaluate what kinds of intervention might be expected to best meet public policy objectives for social and economic development. A particular focus of policy researchers in Ireland and elsewhere has been to persuade governments to pay more attention to evidence in developing public policy. 5

Challenges

The social sciences in Ireland face a number of challenges today. First there is the challenge of being recognised as a distinctive and valuable field of knowledge. Second is the challenge of sustaining and developing a relatively small research base in the social sciences to better understand and enhance key aspects of contemporary society. Third is the challenge of further enhancing educational opportunities in the social sciences at second and third level (and indeed in graduate studies) so graduates are well prepared for rewarding careers that will make a difference to the societies in which they live. Fourth is the challenge of public engagement with social sciences so as to understand problems identified, the research used to address them, and how that research can provide solutions, leading ultimately to a better society.

The Distinctiveness and Value of the Social Sciences

The social sciences in Ireland have progressed from a somewhat stunted position arising from clerical dominance and anxieties that social sciences knowledge might contradict church teaching,⁶ to a position where the

⁴ O'Connor, Pat. 2006. "Private Troubles, Public Issues: The Irish Sociological Imagination." Irish Journal of Sociology 15:5-22.

⁵ Lunn, Pete, and Frances Ruane (Eds.). 2014. Using Evidence to Inform Public Policy. Dublin: Gill and Macmillan

⁶ Fanning, Bryan, and Andrea Hess. 2015. Sociology in Ireland: A Short History. Basingstoke: Palgrave Macmillan, chapter 3; Garvin, Tom. 2004. Preventing the Future: Why was Ireland Poor for So Long? Dublin: Gill and Macmillan.

Social sciences are a distinctive and core aspect of higher education and are increasingly being developed at secondary level.

The

distinctiveness of the social sciences lies in their emphasis on observation of social phenomena and explanation and prediction of human behaviours deploying scientific methods. distinctiveness and value of the social sciences is better known.⁷ Social sciences are very much a distinctive and core aspect of higher education and are increasingly being developed at secondary level. International factors have underpinned this transition, including networks between Irish social scientists and colleagues in North America and in Europe and the role of international public policy organisations include those of the European Union and the Organisation of Economic Cooperation and Development.⁸ Higher education institutions, industry, government and NGOs increasingly value the social sciences for their ability to help us understand our society through their methods and knowledge and to offer and enhance education in the fields of this knowledge. Social sciences are thus distinct from the physical sciences and the humanities while also a vital complement to both these fields of knowledge.

The distinctiveness of the social sciences lies in their emphasis on observation of social phenomena and explanation and prediction of human behaviours deploying scientific methods. This emphasis contrasts with the interpretive and critical apparatus focused on understanding the meaning we impose on experience within the humanities disciplines. This distinction has significant implications for what we can expect of the discipline groups.⁹ To assert this distinction is not to deny that there is overlap between the social sciences and not only the humanities, but also the Science, Technology, Engineering, Maths and Health Sciences (STEMH) disciplines. Thus, while some of the social sciences disciplines such as anthropology, business, economics, education, sociology, social policy, and social work might be characterised as more or less purely of the social sciences, others have significant cross-over with other discipline groups. Thus history, law, linguistics, and media and communications are each strongly overlapping between the humanities and the social sciences, while geography, health systems, information systems, psychology and statistics each have strong overlap between the social sciences and the STEMH disciplines. Archaeology and architecture may be characterised as straddling all three discipline groups (to varying degrees, depending on their focus). ¹⁰ Philosophy has a unique position, deploying methods of critical thinking and analysis familiar in the humanities, but giving them a wider reach by addressing fundamental questions about the methodologies of the natural and social sciences, the very standing of knowledge claims and their normative and ethical consequences.

Sustaining and Developing Research in the Social Sciences

The second challenge, sustaining and developing the research base in the social sciences in Ireland, has a number of dimensions and is concerned both with advancing the theory and methods of core disciplines whilst also demonstrating the value to society of social sciences research in understanding and addressing key societal opportunities. In the UK the Campaign for Social Science was established in 2011 to raise the profile of

- 7 Brewer, John. 2013. The Public Value of the Social Sciences. London: Bloomsbury
- 8 Murray, Peter, and Maria Feeney. 2017. Church, State and Social Science in Ireland. Manchester: Manchester University Press.
- 9 Kagan, Jerome. 2009. The Three Cultures: Natural Sciences, Social Sciences and the Humanities in the 21st Century. Cambridge, Mass: Harvard University Press.
- 10 Bastow, Simon, Patrick Dunleavy, and Jane Tinkler. 2014. The Impact of the Social Sciences: How Academic and their Research Make a Difference. London: Sage, p3.

the social sciences, to inform public policy with evidence, and to promote the benefits of investment in social sciences research and education.¹¹ This campaign involves the articulation of the value of social sciences research on societal issues such as families, health, migration, the economy, governance and inequality, but also demonstrating the importance of understanding social dimensions of wider issues such as causes of climate change and how they may be ameliorated. The demands for understanding our societies and their opportunities require large scale research funding both for single discipline and interdisciplinary research, including the very costly longitudinal studies of key societal features such as child development and inequality. For Irish universities to have international standing this also requires the sustaining and development of a critical mass of social sciences disciplines and infrastructure for teaching and research to an excellent standard. Equally it requires the social sciences to take advantage of new interdisciplinary opportunities, for example for mining new large data sets¹², and in developing experimental and behavioural social sciences to better understand social phenomena and the potential for public policy.13

Reforming Educational Programmes in the Social Sciences

A new Applied Social Sciences Programme opened in NUI Galway in 2017. For the social sciences to be an effective part of public policy making and wider knowledge in Ireland, there must be effective educational programmes in the social sciences. There has been rapid growth in demand, with Pat Clancy noting that the share of higher education students in social sciences, business and law grew from 12 per cent in 1960 to 28 per cent by 2009, when numbers of those in higher education had increased rapidly also¹⁴. Responding both to growing popularity and also a changing environment there has been considerable reform of social sciences education in Ireland in recent years, with, for example a new Applied Social Sciences Programme opened in NUI Galway in 2017 and a new Social Sciences Programme commencing at UCD in 2018. These new programmes are a significant supplement to successful applied educational programmes in fields such as business, education, social policy and social work. There has, at times, been a risk that the important task of preparing students for careers in the social care professions was defining of the social sciences, where in truth their reach and value is much more extensive. Thus these new programmes typically permit the study of economics, geography, politics, psychology, sociology, and other fields and require four years of study in order to promote increasing emphasis on engaging students with the linkage between different fields in order to develop their ability to analyse and understand societal phenomena. These programmes also engage students with the worlds of research and practice, including opportunities for internships, with the benefits of developing substantive knowledge in contexts where students can also develop both research skills specific to the social sciences and more general transferrable skills such as communication, team-working and leadership, for example through internship programmes. Increasing opportunities for study abroad are

¹¹ https://campaignforsocialscience.org.uk/.

¹² Kitchin, Rob. 2014. The Data Revolution. London: Sage.

¹³ John, Peter, Sarah Cotterill, Alice Moseley, Liz Richardson, Graham Smith, Gerry Stoker, and Corinne Wales. 2011. Nudge, Nudge, Think, Think. London: Bloomsbury; Lunn, Pete, and Frances Ruane (Eds.). 2014. Using Evidence to Inform Public Policy. Dublin: Gill and Macmillan

¹⁴ Clancy, Pat. 2015. Irish Higher Education: A Comparative Perspective. Dublin: IPA, p110.

The pipeline of effective and well trained social scientists is supported by the introduction of social sciences into the secondary curriculum.

Social scientists increasingly demonstrate the significance of their research and the importance of social sciences for our understanding of our own and other societies. important for increasing comparative knowledge of societies and their challenges and also a much sought after competence in working across more than one culture. The pipeline of effective and well trained social scientists is supported both by the introduction of social sciences into the secondary curriculum, for example the new Leaving Certificate subject in Politics and Society and new Junior Certificate subject in Philosophy, new undergraduate programmes and the sharpening of taught graduate and doctoral education in the social sciences in higher education institutions.

Engaging the Social Sciences with Society and Public Policy

Addressing the fourth challenge is to recognise that a well-functioning social sciences eco-system which values research and education for the social sciences, must involve social sciences knowledge with the wider world. This includes engagement of key users in the identification of societal issues and the design of effective research to better address and understand social problems. Related to this, we must enhance the capacity of users of social sciences research to engage, through enhancing the literacy of key policy practitioners and professionals in the knowledge of the social sciences, so that they better understand their own needs and how they may be more effectively addressed both through recruitment of social scientists and, equally important, continuing education for employees around key social sciences issues and methods.

Conclusions

With so much interest in understanding our societies, so many societal challenges apparent to us, and the concern to ensure that public policy is backed with evidence, we should be living in a golden age for the social sciences. In Ireland we are continuing to develop education and research in the social sciences so they are better known for what they distinctively offer, even in this financially constrained environment, for learning and research. Despite the challenges, social scientists increasingly demonstrate the significance of their research and the importance of social sciences for our understanding of our own and other societies and the shaping of society in Ireland and internationally. There is a continuing need to enhance educational programmes, to ensure effective funding, both from national and EU sources, for social sciences research, and to engage social and policy groups effectively with social sciences knowledge and research so we may collectively better understand our societies and the options to better them.

Undergraduate Education in Arts and Humanities

Re-thinking the Value of the Arts and Humanities



Professor Sarah Prescott Principal, UCD College of Arts and Humanities and Dean of Arts and Humanities, University College Dublin

his article speaks to recent developments in educational strategy and policy in Ireland which concern the broad value of the Arts and Humanities, and creativity in general, in society, culture and the economy. The debate around the value of the Arts and Humanities is a topic which also has global resonance in an international context. The article focuses particularly on undergraduate education in the arts through an exploration of the employability agenda as it impacts on Arts and Humanities students. The recent curriculum innovation in this area at UCD is used as a brief case study.

The value of the arts and humanities in Ireland is most often viewed in terms of the cultural and artistic contribution they make to the nation, and the concomitant development and promotion of a distinctive and creative national identity with major global impact. The arts and humanities have been described as 'a cornerstone of Irish social, cultural, and political history' and are often presented as 'one of the country's unique selling points' since austerity¹. The cultural values of these disciplines are seen to have an important role to play in public life, as well as adding economic value to Irish society and global engagement. Similarly, scholars and practitioners in these areas are viewed as major contributors to public life and civil society, primarily in the fields of media, performance, and cultural industries (including tourism and cultural heritage), but also more broadly in influencing educational and public policy and business and corporate practice.

Informing this overall sense of the value of the arts and humanities is the less quantifiable quality of the intrinsic value of arts and humanities subjects. The study of art, music, literature, creative writing, history, folklore, drama, theatre, philosophy, languages, culture, and so on, provides a unique and nuanced perspective on our past, present, and future and what it means to be human throughout time. From these broad perspectives, studying the arts and humanities at third level in Ireland can demonstrate all these different yet connected interpretations of the meaning of 'value' in various contexts. Here the context is undergraduate education in the arts and humanities and how its particular values can be supported effectively by rethinking how we deliver and structure degree programmes in this area.

Arts and humanities programmes: The Irish context

The publication of *The Employment and Economic Significance of the Cultural Industries in Ireland* indicated that the arts had become part of public policy dialogue on economic growth and employment². The publication of the Assessment of the Economic Impact of

the Arts in Ireland pointed to the arts as important to the economic policies that the government had identified as crucial to economic recovery.³ The arts were viewed as central to foreign direct investment, to creating an imaginative labour force, and to establishing an innovative environment in which the creative and cultural industries could thrive.

The arts were viewed as central to foreign direct investment, to creating an imaginative labour force... The second and third Global Irish Economic Forums (held in 2011 and 2013) highlighted the role of arts and culture as a key vehicle for economic growth and recovery and a means of restoring Ireland's international reputation⁴. The fourth pillar of the Creative Ireland Programme, launched in 2016, focuses on establishing Ireland as a centre of excellence in media production. The initial focus in 2017 is on Ireland's potential to be a global leader in film production. As part of this process, more attention is now being paid to the role played by the arts at all levels in the education system. For example, the Arts in Education Charter (2013), co-signed by then Ministers of the Department of Arts, Heritage and the Gaeltacht (DAHG) and the Department of Education and Skills (DES), acknowledged the need for an education system that promoted creativity⁵.

In higher education, arts and humanities remain a popular choice for Irish students. In 2015/16, 19% of new undergraduate entrants (8,432) enrolled in arts and humanities programmes⁶. Arts and humanities full-time enrolments at undergraduate level totalled 18,575 students in universities, 7,492 in institutes of technology, and 2,387 in colleges, representing 18% of all students. At postgraduate level, 12% opted to study arts and humanities during 2015/16, equal to those opting for natural sciences, mathematics and statistics (HEA, 2016). At part-time level, 11% opted for arts and humanities at undergraduate level, 6% at postgraduate level. These figures indicate that students are confident about their choice of arts and humanities programmes, and rightly so: in higher education, Irish curricula in arts and humanities programmes are internationally resonant and are developed and led by the research excellence of internationally recognised scholars who bring their research immediately to their students through their teaching. In all international rankings, disciplines in the humanities enjoy higher ratings than those achieved by Irish universities generally. According to the QS World University Rankings in 2015/16, humanities departments outperformed science and technology subjects in Irish universities⁷.

The value of undergraduate education in the arts and humanities

As the Irish educational context has begun to demonstrate, recent thinking about the value of the arts and humanities recognises their importance to current and future educational, social, economic, and technological challenges. Commentators are starting to argue that it is no longer wise or appropriate to dismiss humanistic approaches to problem-solving in the modern workplace. In a reversal of the narrative which privileges vocational degrees and direct training, the disciplines which comprise the arts and humanities are increasingly being recognised as equipping graduates not only with a deep knowledge of their subjects and rigorous intellectual training, but also with diverse and flexible skills, stemming

It is no longer wise or appropriate to dismiss humanistic approaches to problem-solving in the modern workplace. from this intellectual training, which are highly desirable to a broad range of employers.

Foremost is the current political and educational emphasis on the importance of creativity and innovation to a sustained future for Ireland in a globalised world. Such a creative and innovative ethos is at the heart of the arts and humanities and fosters an ability to bring these attributes to bear on the various professional contexts of the modern workplace. Working in tandem with a broad humanistic ethos, therefore, is a demonstrable range of diverse skills which particularly characterise the arts and humanities graduate: a creative mindset, critical thinking, excellent written and verbal communication, collaborative creativity and innovation, cross-cultural and multi-linguistic understanding, effective research techniques and content analysis, depth and breadth of historical knowledge, flexibility, and empathy.

In a further challenge to the narrative which views a broad-based 'arts' education as the antithesis of vocational training and thus not a clear route to employment, it is increasingly recognised that what many employers are looking for is precisely the flexibility and diversity of skills that arts and humanities graduates possess. Indeed, given that the jobs of the future are no longer set in stone nor simply replicate the jobs of the past and indeed present, it is almost impossible to predict the range of different careers the 21st-century graduate may encounter. The fact that most will not work in the academy 'means that interdisciplinary studies, internship opportunities, improving qualitative and quantitative skills, in addition to communication and presentation skills are all vital'⁸. Arts and humanities graduates are extremely well poised to take full advantage of the need for these flexible, collaborative, and interdisciplinary skills.

It is against this broader context of rapid change in the workplace that universities now need to position undergraduate education in the arts and humanities. The potential for arts and humanities graduates to excel in this changing environment is rich, but it is important that during their time as students they are enabled to respond to these future opportunities appropriately and effectively. Success in the workplace of the future will result not only from a dedicated and enthusiastic study of their carefully chosen subjects, through which the skills listed above are inculcated, but also from the structured support they receive as part of their degree. Students of computer science or engineering, for example, are familiar with this kind of structured support in the form of Year in Employment schemes or internship opportunities, most often taken within the framework of an extended four-year programme.

Up to this point, the arts and humanities equivalent has been the year abroad or international year that is usually, but not exclusively, for students of modern languages. The value of the study-abroad year cannot be overestimated and has a proven track record of increasing graduate employment rates, due to the desirability of language skills for employers. The desirability of these graduates is further increased by the crosscultural understanding they develop in an international environment and the fostering of a global outlook which facilitates communication and interaction with different societies and cultures.

What many employers are looking for is precisely the flexibility and diversity of skills that arts and humanities graduates possess.

Curricular change in the arts and humanities: a case study

A major part of the last academic year in the College of Arts and Humanities at UCD was taken up with a collective reimagining and reinvigorating of how we deliver undergraduate education in these disciplines in the 21st century. The curriculum review of the UCD Arts and Humanities programmes was broadly informed by the ongoing aim to provide choice, flexibility, and intellectual excitement for students, through a carefully structured framework which promotes coherence in subject combinations and produces excellent results and impressive graduates aware of the value of what they have learned. In the BA Humanities (first intake in September 2018), for example, UCD students can now study innovative interdisciplinary three-subject pathways, such as 'Languages, Linguistics, and Cultures', 'Music, Film, and Drama', 'Classics, English, and History', and 'Celtic Studies, Art History, and History'.

The interdisciplinary nature of these extended pathways fosters exactly the kind of cross-cultural and flexible creative thinking being asked of graduates, and develops a reciprocally enriching understanding of cognate subjects and thus a breadth and depth of expertise. Students will be able to test this flexible thinking in extended interdisciplinary research projects or take advantage of shorter periods to study abroad to enhance their international experience over the course of a semester. The four-year duration of the degree also creates space for the internship opportunities familiar to STEM students, which are now to be made available to arts and humanities students.

The overall aim was to create a practical, employer-facing component in the Humanities programme which works 'to consolidate and complement academic learning, knowledge and skills with experience'⁹. The internship module centres on a 10- or 14-week internship with an industry partner (state body, charitable organisation, arts or cultural organisation, or industry partner) and is supported by pre-placement workplace training. Its purpose is to enhance core skills, attitudes, and competencies that are not only fundamental features of the degree programme but are also portable, relevant to diverse workplace settings, and important for deepening understanding of what constitutes active and engaged critical citizenship.

The objective is that students will develop personal organisational and communication skills (written and oral) through continuous work practice, and will cultivate awareness of the intellectual, cultural, social, and practical requirements of specific working environments. Students are expected to reflect actively and critically on skills and knowledge in ways that will help them to engage in planning future learning and career pathways. Students on the programme will show consolidation and enhancement of this learning experience by means of critical, reflective writing and presentations on their working experience.

One of the most enjoyable and informative parts of planning for the internship module was spending time talking to a diverse range of employers about what arts and humanities students can offer. A key principle is that the type of employers approached does not simply replicate the stereotypes about career destinations for students in our disciplines,

Part of planning for the internship module was talking to a diverse range of employers about what arts and humanities students can offer. although of course 'traditional' destinations such as teaching and cultural industries remain centrally important. These employers, from industry, banking, tech, and human resource management, to creative industries, tourism, media, and community and charitable trusts, all share a common interest in the attributes of arts and humanities students for precisely the diverse skills identified here. It is therefore crucial to give students practical experience in a structured and reflective context so that they become aware of the value of their skills and can articulate why, as arts and humanities graduates, they are desirable to the employers of today and tomorrow.

Conclusion

As arts and humanities teachers and scholars, we need to articulate more clearly and loudly the value of what we do as researchers, the importance of what and how we teach, and the value of the graduates we produce – graduates who in turn add their own value (in its fullest meaning) to the intellectual, social, cultural, economic, and public life of Ireland and the world. It is precisely because arts and humanities degrees do not follow clearly defined career pathways that it is crucial to recognise and clearly articulate the broader value they provide. What the curricular innovations at UCD will give to arts and humanities undergraduates is the time, space, and support within the degree structure to make the connections and build the language they need to articulate their own value and explain the significance and relevance of the subjects they have studied. Recognising the value of the arts and humanities is thus significant not only to the workplace but also to the renewed attention being paid in Ireland to the importance of creativity in public life and discourse in the 21st century.

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It is precisely because arts and humanities degrees do not follow clearly defined career pathways that it is crucial to recognise and clearly articulate the broader values they provide.

Dance Residencies in Initial Teacher Education

Need for Effective Partnerships between Residency Facilitators



Susan Marron Lecturer in Physical Education, School of Arts Education and Movement, Institute of Education, DCU



Dr Tríona Stokes Lecturer in Educational Drama and Dance, Froebel Department of Primary and Early Childhood Education, Maynooth University

Introduction

Collaboration across the arts and education sectors, as represented by the *Arts in Education Charter* (2013), has been promoted in various guises since the launch of the Charter by the Departments of Arts, Heritage and the Gaeltacht, and the Department of Education and Skills. Further to the publication of *Artists-Schools Guidelines* (2006) and *Points of Alignment* (2008), the Charter prompted the establishment of *Encountering the Arts Ireland* in 2013 and the *Arts in Education Portal* in 2015. The Charter also developed partnerships between the Arts Council and Higher Education Institutes (HEIs) through the funding of artist residencies within initial teacher education. According to Kenny and Morrissey (2016:10):

'Such residencies have enlivened provision for the visual and performing arts in initial teacher education programmes and enhanced the arts cultures of the HEIs in which they are based'.

s the two recent Irish Arts Council initial teacher education dance residencies culminate, this article serves to review, reflect and highlight the unique yet shared experience of the residency facilitators. Effective partnership is investigated and its tenets discussed with reference to both residencies. This article will outline the background of two residencies with dance as the shared art form where the nature of partnership in Arts Council residencies situated within HEIs is highlighted. It will examine key tenets of effective partnerships with a focus on the achievements and challenges. From the outset it must be stated that The Irish Primary Physical Education Curriculum (1999) strand of dance is reflected across both residencies as pillars guiding planning and emphases. Since 2013 there have been two national three-year dance residencies within Bachelor of Education and Professional Master of Education programmes. The DCU Institute of Education hosted CoisCéimDance Theatre Company 2013-2016, and Maynooth University Froebel Department of Primary and Early Childhood Education hosted Dance Artist Lisa Cahill respectively, from 2014-2017. With the support of their colleagues, lecturing staff in the respective host institutions, Susan Marron and Tríona Stokes, became the facilitators of the residencies.

In addition to the essential partnership of the Arts Council and university educational institution, a web of other necessary, and sometimes unforeseen, partnerships emerged within (*intra*) and beyond each institution (*inter*) which are highlighted in Table 1. In this regard, a collegial relationship developed between the residency facilitators at the two universities. The performance and sharing event allowed for opportunities to invite additional guests including facilitators from other institutions. The relationship between the facilitators culminated in the writing of this article providing opportunity to reflect on what makes an effective partnership.

Effective Partnerships

Hallam's (2011) definition of effective partnership within music education is drawn upon for the provision of a common framework under which to analyse each of the dance residencies outlined in Table 1. Hallam (2011:155) states:

'Effective partnership working takes account of context, requires good communication, time, leadership, mutual trust, clarity of roles and responsibilities, and the support of senior management...'

For the purpose of this article, each of these component headings of Hallam's (2011) definition is discussed. Initially the context of the residencies is described with reference to the nature of professional degree programmes and the opportunities and constraints therein. Leadership and mutual trust are brought together for ease of discussion. Then a focus on communication and its importance in building effective partnership is followed by an analysis of the implications. Time and its many implications were necessary items for consideration under context and leadership and mutual trust.

	1	
Host University	Froebel Department of Primary and Early Childhood Education, Maynooth University	Physical Education Unit, School of Arts Education and Movement, Institute of Education, DCU (Formally St. Patrick's College)
Collaborating Artist(s)	Lisa Cahill, Individual Dance Artist	<i>CoisCéim</i> and Philippa Donnellan <i>BroadReach</i> (individual artist and Dance Company)
Artist Background	Dance Artist and Producer; co- founder ofSpoken Dance company; former primary school teacher	Dance Organisation Teacher, Facilitator and Director, Founder of <i>BroadReach</i> - access and participation programme
Background of residency facilitator	Former teacher; Lecturer in Drama Education and Dance	Former teacher; Physical Education Lecturer
Annual student intake	70 Bachelor of Education	420 Bachelor of Education
	35 Professional Master of Education (Primary)	65 Professional Master of Education (Primary)
Residency Duration	January 2014- January 2017	September 2013- May 2016
Departmental structures involved in the Residency	4 person committee comprising	2 person committee comprising
	Professor Marie McLoughlin, Head of Department; Tony Sweeney, Lecturer in Physical Education; Dr Tríona Stokes, Lecturer in Drama Education Residency Facilitator); Laura Thornton, Lecturer in Visual Arts Education	Lecturers in Physical Education, Dr. Frances Murphy and Susan Marron (Residency Facilitator), with express support from the Head of the Education Department and the University President

Table 1: Overview of the Arts Council HEI Dance Residencies

Role and Responsibility of the Facilitator	Documentation and administration; coordination of Arts Residency committee meetings and weekly planning meetings re content and schedule; monitoring budget; booking facilities; liaison with partner schools; ethical permission processes; monitoring and reporting on progress;	Documentation and administration; planning programme pedagogy, content and schedule; budget planning and administration; liaison and briefing with schools, teachers and children; ethical matters for photographer; bocking facilities; monitoring and reporting on progress;
Intra:(University level)	Co-plan and co-facilitate course content with staff members from curricular areas of PE; SPHE; Drama; Visual Art and Gaeilge; Liaison with AV. Technician; Health/Safety Officer	Co-plan and co-facilitate course content with PE lecturers Co-ordination with the Estates Office, Theatre Technician, Audio Visual Technician
<i>Inter</i> : (Cooperation at local and national levels)	Liaison with Lisa Cahill, Dance Artist; Local Schools in Kildare; Brenda Brady and Arts Officer Lucina Russell,Kildare Arts Service	CoisCéim: Sarah Latty Company Manager, Bridget Webster Executive Producer and Philippa Donnelan, BroadReach Director; Students Union; Social Media platforms and local school
Admin.	Tríona Stokes	Susan Marron and Gaye Ashford
Residency Pillars	 Developing dance pedagogy and resources Integrating dance into university modules Dissemination of practice Engaging with the Arts Education community 	 Seeing dance events for students, staff and schools Dance education workshops building on core PE modules to increase confidence to teach dance Dance club (2013-2014)
	Education community	4. Ticket availability to Dublin dance performances
Aspects of the Residency	Guest speakers, Visual Artist, Vera McEvoy and Arts Officer, Lucina Russell at <i>Creative Textiles</i> <i>Exhibition Launch 2015; 2016;</i> Co-taught cross-curricular workshops Dance artist working with artist mentor, Dr Mary Nunan (2016) Performances: • <i>Your Turn My Turn</i> with Deirdre Corry(May 2014) • <i>Finding our Way</i> (Dec. 2015) • <i>Connect/Disconnect</i> duet with Choreographer Vivien Brodie Hayes (March 2016) • <i>Unfolding</i> by Lisa Cahill (December 2016)	Dance Education thematic out-of- class 2-hour workshops Dance Club performance (2013) In-class work with Major and Minor PE Specialist modules <i>Talking Dance</i> with David Bolger: Following the screening of <i>Deep End</i> <i>Dance</i> and <i>Hit and Run</i> the making and choreographic process was discussed CoisCéim Performances: <i>Missing</i> by David Bolger <i>The Wolf and Peter</i> by David Bolger Initial development sessions and showing <i>Body Language 101</i> by David Bolger & Christopher Ash Open Door rehearsals
Community Engagement	Annual local school engagement; Dance Surprise for Culture Night Kildare, 2015; 2016; Bursaries awarded to four B.Ed. students to attend Kildare Community Laban Dance Summer School July 2016.	St. Patrick's Boys N.S .
Sharing Experiences	Artbeat symposium attendance (March 2015) Finding our Way Presentation by artist and facilitator at the First Arts Portal National Day (April 2016) Dancing around the World InTouch lesson plans (March 2016) https://www.into.ie/ROI/ Publications/InTouch/2017/ March2017/InTouchMarch2017.pdf	Arts Portal National Day (2017) Dance and story TellingCreative Dance Tales InTouch (June 2017) http://intouch. freeflowdp.com/intouch/36867931933 52355?pg=44#pg44
Artefacts Arts Portal Website	Finding Our Way http://artsineducation.ie/en/project/ finding-our-way/	Creative Tales: The Wolf and Peter online digital resource http:// artsineducation.ie/en/project/creative- dance-tales/

Context

The generalist primary teacher must be imbued with the confidence to teach dance and provide quality dance experiences for children.

[Students'] availability to attend evening dance events was limited.

This initial investment of time was crucial in building a strong working relationship. Hallam (2011) believes that effective partnerships work if they take account of the context. The unique local circumstances with the inaugural HEI dance residencies are summarised in Table 1. With dance as a singular aspect of a degree component, mirroring its curriculum status, the generalist primary teacher must, nonetheless, be imbued with the confidence to teach dance and provide quality dance experiences for children. Timetabling and the truncated nature of semester time due to School Placement and the assessment demands of the academic year present considerable challenges in terms of timeavailable to a residency within initial teacher education.

In terms of lecture input, co-teaching and mentoring opportunities worked best with elective and major and minor arts and physical education'specialisms'. Considering the volume of student numbers alonelt would not have beenpossible, for either residency to offer all students opportunities to engage with in-class programme content. Therefore, it was envisaged that multiple means for engagement beyond course structures would be the principle means to extend the reach of the artist(s) on campus. This resulted in establishing evening workshops and a dance club. However, as many students live some distance from their universities or return home at weekends, their availability to attend evening dance events was limited. This was evidenced by low numbers attending the dance club (2013) at St. Patrick's College and the early workshop events in the Froebel Department. It also manifested itself in the limited uptake of free tickets by students via CoisCéim to attend other professional dance performance events.

The residency models in adapting to their particular contexts took cognisance of the workings and values of their partners, and the unique blend of personal and professional relationships created. Planning a year ahead for events was crucial to effectively accommodate the residency within the academic year amid the multitude of roles and potential commitments of artists thereafter.

There was a sense of trepidation in initial meetings, as it was the first time the partners had met to work together. While each brought the expertise of her own field, it was acknowledged that each partner felt a limited understanding of the work of the other. This initial investment of time was crucial in building a strong working relationship, affording opportunities for reciprocity where shared understanding emerges from engaged pedagogy (Kind et al., 2007). A desire for 'deepening understanding of the other's craft' underpinned these initial planning meetings, as the schedule of work necessarily forged ahead (Kind et al, 2007:844).

As the first year progressed, experience revealed patterns of success and aspects for improvement. It became apparent to both parties what was working best, with latter phases involving further negotiation of facilitator-artist identities. Each partner's unique perspective largely represented her expertise and background, namely, the skill and artistic expertise of the artist and the pedagogic understanding and skill of the facilitator.Towards the end of the residencies, facilitators reported that their professional and personal relationships became 'inextricably linked' (Teaching Council of Ireland, 2016:11). Partners' skills and creativity complemented one another resulting in shared learning and richer collaboration, recalling the Aristotelian adage, 'the whole is greater than the sum of the two parts'.

Leadership and Mutual Trust

Leadership of the residency took many forms, from listening and consultation, to negotiation, problem-solving and reflective thinking. Each was required to respond to the needs of both the artist and the department in meeting agreed outcomes. Regular sharing of ideas and building initiatives collaboratively allowed each partner to lead and follow, learning by using her particular strengths and expertise in pedagogy and the creative use of the art form.

Time is required to build and jointly lead a trusting and productive relationship of any kind, and those within effective partnerships that allow each partner to flourish, are no different. It has been well documented regarding effective school-based arts education partnerships that shared ownership can only occur where sustained relationships have been established over time (Wolf, 2008;Bamford and Glinkowski, 2010;Kenny and Morrissey, 2016). Contrary to an assumption that partnerships '... evolve overnight, they take time to initiate, nurture and grow' (Morrissey, 2013:31). This can equally be said of effective partnerships between facilitator-artist at HEI level, where different backgrounds, expertise, and complementary strengths merge.

Time was necessary for the artist(s) to become accustomed to working in an academic institution, and in negotiating institutional structures, from understanding the course outcomes and demands to the process of acquiring a work space and accessing resources. Sharing departmental and programme documentation of the host departments helped direct the artist's focus to provide a clearer sense of purpose (Hallam, 2011).

The facilitating lecturer became accustomed to liaising within and beyond the department in establishing resources, coordinating with colleagues to secure spaces and establishing footholds for the residency to take roots. Facilitators sought alignment with relevant electives or 'specialisms' in order to bring depth and richness of experience for all, while responding to the preferences of the artists regarding the identification of potential school, student or community groups.

With time and the experience of the first year, review meetings and reflection made smoother the management of subsequent years. As relationships strengthened between the facilitators and artists, confidence built making possible the sharing of observations and reflections to be held in trust by the other. Critical to this was accessing the student voice in terms of evaluating initiatives. This was undertaken largely via feedback sheets to inform planning and to reshape and improve the experience of the residency for all stakeholders. The importance of monitoring and evaluation is emphasised as crucial by Hallam (2011).

Shared ownership [of school-based arts education partenrships] can only occur where sustained relationships have been established over time.

Accessing the student voice in terms of evaluating initiatives [was critical].

Communication

Hallam's (2001) further tenet of effective partnerships is good communication which is discussed with reference to communication between all stakeholders. Initial communication between partners took the form of planning meetings which have been described under context.

Clear communication with the student body was required to highlight scheduled dance events. Administrative support was required byfacilitators in the creation of attractive publicity documentation for access via notice-boards, email and social media. The purpose was to motivate university-age student teachers to learn more about dance by participating in out-of-class dance workshops and to inspire students to access dance performances, thus 'seeing dance'. Assistance was sought by facilitators in the management of students signing up. As residency outcomes included support of student teachers in the teaching of dance on School Placement, the development ofensuing online resources and lesson plans were instrumental to furthering the teaching of dance on School Placement, and beyond.

The purpose was to motivate university-age student teachers to learn more about dance by participating in out-of-class workshops. Communication was required with other stakeholders in the institutions through convening internal and external meetings (See Table 1). It also involved writing regular reports for newsletters and websites for the wider institutional bodies, governing bodies and the Arts Council. Public relations and communication opportunities emerged to share works created, including resources and performances. These public events, to which multiple stakeholders within and beyond the host university were invited, thus highlighting:

'the status of the arts within education as well as the obvious pedagogical benefits of allowing students the opportunity to engage with working artists; gaining a 'lived' understanding of the arts in education settings (Kenny and Morrissey, 2016:11).

The 'living through' aspect of the residencies in students seeing and creating dance provided a 'value-added' dimension for facilitators in promoting dance as part of teacher formation. In providing additional arts experiences through the residencies, it was endeavoured that student teachers' confidence in their own artistry and skill would grow, alongside the value they attribute to dance. From the perspective of Arts Council residencies serving to extend the reach of the Arts in Education Charter (2013), there is a 'multiplier effect'. Student teachers emerging as qualified teachers with increased exposure to, and skill in, arts education, in turn, can facilitate the development of skill and artistry in the children they teach.

Conclusion

The Arts Council residencies in initial teacher education provide a unique opportunity for all involved. For teacher educators, having access to the work of an artist or company of artists is both a privilege and a learning tool for all involved. In addition to opportunities for artistic engagement, student teachers are exposed to arts-rich learning and can gain insight into how an idea is brought from inception, through different iterations and processes, to its staging as performance. These steps mirror the

In providing additional arts experiences... it was endeavoured that student teachers' confidence in their own artistry and skill would grow, alongside the value they attribute to dance.

processes of any process-based, arts education performance initiative in schools. Further, with the launch of Creative Ireland Programme 2017-2022 highlighting current policy emphasis on teacher-artist partnerships, experience of an arts residency locates an emerging teacher favourably to engage in such partnerships. By enhancing the quality of teacher preparation in dance, experience of an arts residency can equip him or her to invite artist(s):

'..into their classrooms to add another dimension/perspective to the classroom conversation and explorations in which children are already engaged' (Morrissey, 2013: 31).

Despite the challenges evidenced, HEIs have an important role to play nationally in building capacity for both future teachers and artists to work in partnership to witness meaningful arts education practice modelled through an integrated and collaborative approach. Increased confidence in student teachers' own skill and artistry as a shared aim of both dance residencies, and representative of Arts Council residencies in HEIs, promotes the generation of children's creativity and their lifelong physical activity.

NOTES:

-Research data is being analysed on data collected during the dance mentoring in-class teaching element of the residency at DCU

- The online digital resource Creative Tales: The Wolf and Peter will be integrated into the Bachelor of Education Year 2 lectures from September 2017 by the Physical Education Unit, School of Arts Education and Movement, Institute of Education, DCU.

-Story-maker, Peter Hussey commenced his residency in September 2017 at Maynooth University Froebel Department of Primary and Early Childhood Education.

Facilitators Susan Marron, School of Arts Education and Movement, Institute of Education DCU and Dr Tríona Stokes, Maynooth University Froebel Department of Primary and Early Childhood Education would like to thank the Arts Council of Ireland for their continued support.

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Professional Development Framework for Teachers in HE

The Unique Features





Dr Roisin Donnelly Dr Terry Maguire National Forum for the Enhancement of Teaching and Learning in Higher Education

n this article, the authors discuss the formation and early implementation of the National Professional Development Framework for all who teach in higher education - a key strand of the work plan of the National Forum for the Enhancement of Teaching and Learning. 'Would you tell me, please, which way I ought to go from here?'

'That depends a good deal on where you want to get to,' said the Cheshire Cat.

'I don't much care where,' said Alice.

'Then it doesn't matter which way you go,' said the Cat.

'So long as I get somewhere,' Alice added as an explanation.

'Oh, you're sure to do that,' said the Cat, 'if you only walk long enough.'

Lewis Carroll (1865)

Introduction

In higher education, we have become increasingly aware of the narrative of being part of a knowledgebased economy, and know there are strong, compelling reasons for continuous professional development (PD) to support our role as educators. For anyone who teaches and supports learning in Irish higher education, PD is fundamental for remaining current in their role, it provides the drive to progress their career, and to deal with change in the sector.

Prior to 2016, there has not been a mechanism or route in place nationally to give structure, focus and support to individual academic staff members to avail of relevant PD and utilise it to realise their full potential in their teaching role. Promisingly, there are more PD opportunities to choose from nowadays for those teaching in Irish HE than ever before, but negotiating the labyrinth can remain difficult.

This article discusses a key strand of the work plan of the National Forum (NF) for the Enhancement of Teaching and Learning – the formation and early implementation of the National Professional Development Framework (PDF) for all who teach in higher education (HE). This important work is leading towards national recognition of an individual's commitment to professionalism in teaching. By deepening sectoral understanding of the PDF itself, and raising awareness of the recent pilot The Professional Development Framework is about promoting a culture of sustainable engagement for teachers to take ownership of their personal and professional devlopement.

The rapidly changing environment of Higher Education requires those who teach to have a personal commitment to professional development. study implementation with staff who teach in universities, institutes of technology and private colleges, we are adding to the long-standing debate about the possible connections between professionalisation of teaching and improvements in student learning experiences and outcomes.

We have structured the article using a series of questions to highlight what is unique about this PD Framework, its underpinning values, and distinctive domains.

Why is a national PDF important for Teaching & Learning in HE in Ireland?

At the forefront of this work by the National Forum is an aim to drive and maintain engagement in professional development initiatives for teachers to support their career-long growth. With competing forces and priorities in HE today, it can be the case that initiatives related to professional development become sidelined or relegated to an exercise in compliance. Against the backdrop of increasingly demanding job requirements, the PDF is about promoting a culture of sustainable engagement for teachers to take ownership of their personal and professional development.

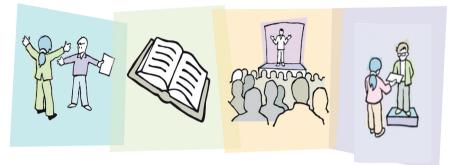
The rapidly changing environment of HE in an increasingly digital world requires those who teach to have a personal commitment to professional development. The National Forum responded to this need, and an extensive consultation process with the HE Sector across 2014–15 (NF, 2015) highlighted a range of (often contradictory) views about a national PD Framework. What emerged was the need for a values-based framework, underpinned by scholarship that was flexible enough to be inclusive of all those who teach in HE, one that included all types of professional development, and that encourages those who teach to engage in a continuous cycle of evidence-based reflection on their practice over the lifelong learning process. There was a need for flexibility for institutions to interpret the framework for their own context.

There was less agreement about whether the need to develop personal and professional digital capacity should be included explicitly or be integrated across the framework. The diversity of opinion about what the national framework would look like (the form it took and its content) means that the framework as developed may not be considered perfect, but importantly it is accepted by all those who teach in the sector as usable for their practice.

The PD Framework was published by the National Forum in mid-2016 [http://www.teachingandlearning.ie/wp-content/uploads/2016/09/ PD-Framework-FINAL.pdf] to provide guidance for the professional development of individuals and give direction to other stakeholders (e.g. institutions, higher education networks, educational/academic developers, policy makers and student body representatives) for planning, developing and engaging in professional development activities. As requested by the sector, the PDF provides descriptions of the domains of PD activity, elements and professional values associated with the performance of teaching, and associated leadership roles.

What do teachers in Irish HE consider as a viable PD opportunity?

Figure 1 below shows the types of professional development opportunities incorporated in the framework which include activities which are non-accredited (including collaborative, unstructured and structured) and those which are accredited.



1. Collaborative Non-Accredited	2. Unstructured Non-Accredited	3. Structured Non-Accredited	4. Accredited
Examples	Examples	Examples	Examples
Conversations with colleagues, peer networking, peer observations, online blogs/discussion forums, mentoring, critical friends where you engage in informal dialogue with peers on how to improve teaching	Reading articles, following social media, self-study, watching video tutorials, keeping a reflective teaching journal/portfolio, preparing an article for publication	Workshops, seminars, MOOCs, conferences, summer schools, structured collaborative projects, research project on a topic of professional interest	Professional Certificate, Graduate Diploma, Masters, PhD, EdD in: Teaching and Learning, eLearning, Leadership in Education; Education Policy

Figure 1: Types & examples of PD identified in NF consultation

Staff members that teach develop their knowledge, skills and competencies in their teaching through a range of learning activities. Each learning activity can be described by different types of learning, singly or in combination. The framework identifies and recognises four types of learning associated with any professional development learning activity ('new learning', 'consolidating learning', 'mentoring' and 'leading').

What are the unique features of the Professional Development Framework?

There are other PD frameworks in place in HE internationally, so what makes this Irish framework so distinctive? Its uniqueness is in reframing the PD conversation through a shift in discourse to one of advocacy, and it repositions professional development in Irish HE so that it places priority soundly on the individual's needs. The PDF (illustrated in Figure 2 below) presents a holistic approach to professional development, incorporating the five domains with the individuality of the staff member at its core.

A key feature of the framework is its flexibility in how it uses a domain-based approach to professional standards in T&L. There are five PDF domains, each of which is applicable to a wide number of staff roles and to different

career stages of those engaged in teaching and supporting learning. The standard domains and elements are underpinned by professional values, all of which emerged from the extensive and concentrated sectoral consultation. By setting objectives and charting progress towards their achievement, identifying strengths and development needs and enabling discussion of career aspirations, the PDF can support individuals to be responsible for determining what they need to learn, for managing and undertaking their own PD activity, and to consider how best to incorporate innovations to their professional practice.

Individuals can interpret the framework in his or her unique way, depending on disciplinary background, and can showcase their engagement with relevant domains of the PDF. The framework enables individuals to show how they learn in diverse ways and represent knowledge, so teachers and those working in learning support can take differentiated approaches to using the framework, and engage at times that best suits their schedules in the cycle of the busy academic year.



Figure 2: The five domains of the national PDF

- » At the core of the domains is the centrality of the Self recognising that the professional and personal values that the individual brings to their teaching are pivotal in their development as a teacher.
- » Professional Identity and Development captures the development and self-evaluation of professional identity and recognises that an individual's professional identity can change at different stages of their career.
- » The Professional Communication and Dialogue domain emphasises the need for those who teach to be able to communicate, and collaborate through a range of media.
- » Professional Knowledge and Skills ensures the individual remains current in terms of their professional/disciplinary knowledge and can implement teaching, learning and assessment approaches which are reflective and underpinned by a strong evidence base.

» The explicit inclusion of the domain Personal and Professional Digital Capacity recognises that we live and work in a digital world, and that teachers must develop digital skills to have the self-assurance to harness the potential of technology for learning impact. This domain has made explicit the need to develop skills and confidence for those that teach in Irish higher education.

The development of an individual's engagement with the scholarship of teaching and learning is an integral component of each of the five domains.

The PDF is underpinned by five key professional values which act as a guide for individual staff, academic departments and institutions to recognise, inform, enhance and sustain PD in Irish Higher Education (Figure 3 below):

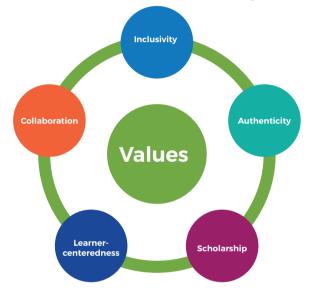


Figure 3: The underpinning professional values of the national PDF

A glance at each value below reveals why teachers in Irish HE identified these as fundamental to their PD:

Inclusivity: The framework is for all staff members who teach regardless of their employment contract, the stage they are at in their career or their professional identity. It is just as relevant to learning support staff and management as lecturers at different stages in their career, and this is evidenced in the pilot study implementation discussed in this article.

Authenticity: The PDF recognised that PD must allow for genuine and personally relevant engagement by participants; opportunities for PD must be real, useful and valuable to individuals in their practice.

Collaboration: Although focused around individual staff, the approach supported by the PDF aims to emphasise the social learning that is key to learning in the workplace context. Being continuously productive in busy academic roles can be overwhelming, so having the support of colleagues

The framework is for all staff members who teach regardless of their employment contract. One of the first steps taken this year was the formation of an independent Professional Development Expert Group to develop sectoral capacity to support the PDF in the HEIs. through engagement with the framework can sustain our instructional vitality. The PDF can encourage staff peer dialogue and support the mentoring of other staff.

Scholarship: The framework emphasises the importance of teaching having an evidence base and supporting the scholarship of T&L. It encourages staff to link with established best practices in professional development while also fostering innovation on the basis of evidence.

Learner Centredness: If those who teach in higher education are always encouraged to be student-centred in all that they do, then it naturally follows that the PD opportunities provided for them must position the learner at the core.

Implementing the PD Framework across the sector

Once the PDF was developed, the challenge for the National Forum was how to implement the framework across the sector. Considerable thought went into planning the early implementation of the PDF, and we feel that the connections formed through each stage contribute to the uniqueness of the work. One of the first steps taken earlier this year was the formation of an independent PD Expert Group with 10 academics and education experts to develop sectoral capacity to support the PDF in the HEIs. The work of group is crucial for guiding sustainable engagement with the PDF throughout the sector. Working closely with staff in the NF dedicated to the PDF pilot studies, the PD Expert Group scheduled for the initial implementation of the PDF to be completed in the timeframe February-June 2017. The pilot studies were designed to capture how individuals (from a range of individual professional identities) navigate the PDF with a view to informing future support material and resources to guide others using the framework in the future. There were 22 pilot groups formed in the HE sector from universities, institutes of technology and the private colleges:

» New and experienced academic staff from a wide range of disciplines;

- » Heads of Department;
- » Part-time lecturers from industry;
- » Teaching staff from the Health Professions;
- » Academic Writing Tutors;
- » Maths Learning Support Tutors;
- » Learning Technologists;
- » Nurse Educators;
- » Educational Developers;
- » Careers Advisors;
- » Disability Liaison Officers;
- » Teacher Educators;
- » New Teachers in the HECA Colleges;
- » Librarians;
- » Work Placement Co-ordinators;
- » Art & Design Practitioner-Educators;
- » PhD Supervisors;
- » Teachers who research;
- » Researchers who teach.

There were 22 pilot groups formed in the HE sector. Each of the 22 pilot study groups gave the participants an opportunity to begin a professional development portfolio (PDP) to explore the domains of the framework, using it to think about how they can develop as teaching professionals. Those involved were encouraged to develop their PDP in any format and media that enabled them to collect their evidence in a way that suited their needs and context, and allowed them the space to undertake the continuing process of assessment, analysis, action, and review of their practice, at a time and pace that suits them. Compiling the PDP reinforces professional learning by directing the teacher's attention to strengths and gaps in their knowledge and skills and enables them to set clear goals for their own development. It is also evidence of the teacher's development and commitment to PD and to keeping up-to-date with rapidly changing knowledge, and the need to maintain and develop skills. Arguably, such a PD record is something that can support national professional mobility.

While the evaluation phase of this work is currently taking place, some early insights come directly from the 210 participants who engaged with the pilot studies. Clear benefits are emerging in terms of collaboration, authenticity and learner-centeredness which are a great endorsement of the underpinning professional values of the PDF.

The participants were asked why the PDF matters to them

The following insights were shared from across the participating professions:

- » Encourages critical reflection on practice, training, experience, educational history, skills, knowledge over professional lifetime
- » Promotes collaboration with colleagues
- » Leverages individual's strengths and recognises areas for development
- » Keeping people fresh and engaged as mid-career professionals
- » Builds personal and professional support systems for role
- » Enables reviewing, planning and taking responsibility for personal and professional development & learning
- » Considers knowledge and skills gaps and barriers
- » Supports habits of recording and evidencing work and interactions
- » Identifies the core values that drive teaching
- » Serves as a jumping-off point for future professional plans
- » Helps navigate through the overall scope of work activities
- » Aids evaluating, better understanding and continuing to develop contributions to T&L
- » Awakens conversations and discussions on PD and a curiosity to explore the connections between T&L and the potential interchangeableness of these roles
- » Instils a sense of appreciation for what is being achieved in T&L practice
- » Provokes discussion on the diversity of the teacher/researcher role
- » Collaborative exercise with colleagues from other schools and disciplines - to be able to learn from others
- » Is a user-friendly framework to categorise, manage and disseminate PD activity in a consistent and transparent way across the sector
- » Recognises the educator in all higher education professionals and their activities

Clear benefits are emerging in terms of collaboration, authenticity, and learnercenteredness. Institutions are being financed through the T&L Enhancement Fund to map their existing professional development provision onto the PD framework.

The incorporation of a peer triad support mechanism will allow teachers to work together in bringing their PD further into their practice. Complementing the work taking place on the PDF through the pilot studies, an innovative initiative that has really grabbed the collective imagination of the sector is the design, development and delivery of a series of national digital badges on PD. From February–June 2017, fifteen development teams from across the sector have collaborated to produce open access PD programmes (each requiring 25 student effort hours) on key topics which can be delivered across all institutions. Completion of these programmes will earn participants a National Forum digital badge matched to the domain it relates to on the PD Framework. These badges can improve the mobility and recognition of non–accredited professional development of staff across the sector.

Two further PDF initiatives have gained significant traction in the sector in recent months. Institutions are being financed through the T&L Enhancement Fund 2016 to map their existing professional development provision onto the PD framework, to develop specific resources for those in a leadership role as well as entry programmes for graduate assistants. Ten collaborative projects are underway involving 22 HEIs. In addition, full details of these projects are available at http://www.teachingandlearning. ie/digital-enhancement-funding/2016-tl-fund-proposals/

Professional development has also been included as a funding stream the 2017–18 national funded seminar series and will enable colleagues to make connections throughout the sector and focus on shared interests in both the research and practice of T&L enhancement, and specifically building capacity through professional development. We strongly feel this work is important to keep up the momentum going of implementing the PDF, and to continue to give more and more teachers the chance to opt use the framework.

Ultimately, our aim is to develop a PD Recognition Framework informed by the pilot implementation and other initiatives. The PD Recognition Framework will acknowledge an individual's commitment to continuous professional development. The incorporation of a peer triad support mechanism (September 2017) will allow teachers and those in learning support from different disciplines to work together in bringing their PD further into their practice; this is key because bridging the theory-practice gap and the transfer of new ideas to the f2f, blended or fully online classroom is perhaps one of the most challenging areas that a teacher can face. The PD Recognition Framework will nurture and accelerate good ideas, showcase innovative practice, and encourage collaborative networks and partnerships among HE teaching staff. Having the opportunity for input and discussion with colleagues as a support system for this will be hugely beneficial. It will enable a sector wide learning community to form that will enrich the practice of the immediate three individuals involved, but also the profession as a whole. Through the triads, teacher success stories, as well as the challenges and how they overcome them, can be shared for the benefit of all involved.

Figure 4 (overleaf) provides a synopsis of the unique PDF characteristics to date. We are expecting and will welcome further insights which emerge from the ongoing full-scale evaluation of its early implementation in the sector.



Figure 4: Summarises the areas that show the uniqueness of the national PDF

Recommendations for the HE Sector

Implementing the PDF in the HE sector is undoubtedly challenging; but the unparalleled enthusiasm and commitment of the teachers who have embraced the challenges and engaged in all stages of the PDF pilot implementation has reinforced belief that this is the way forward for the sector.

- » Encourage staff to engage with the framework: The PDF is important to the professional identity of all staff that teaches or supports learning. As well as engaging in formal accredited PD, committed T&L staff members in Irish HE are learning on the job all the time, and the PDF allows this informal learning to be recognised, valued and recorded. The PDF can empower individuals to take ownership of their PD to create, discover and engage in meaningful personal and professional development as a career-embedded commitment.
- » Senior management should provide strong leadership: Policymakers and institutional leaders must take some a leadership role to encourage and enable the sector wide implementation of the framework. They must support all educators within their institutions to engage in continuous professional development and apply that learning to improve student learning. The national PDF offers a clear definition and roadmap for engaging with professional development within Irish HEIs for the future.
- » Learning Communities can support those involved: Learning communities at discipline, programme or department/faculty level, together with communities of practice are the major engines of change.
- » **Emerging theme of professionalization of teaching in HE**: Progress on the theme of professionalisation has been positive and visible

in the period 2014-2017, and there is strong support for retaining this theme in the foreground of activities at institutional, regional and national levels. A more nuanced understanding of PD needs is now evident, with an emphasis on support for specific areas and on the development of academic teams. There is openness to mapping existing and future PD provision to the Framework.

» The concept of a staff 'PD portfolio' is regarded positively, with the PDF supporting individuals to evolve their own PD portfolio as an excellent opportunity to reflect on achievements to date, receive feedback from peers, explore issues in their T&L practice, and decide on priorities and objectives for the future.

Conclusion

'An education system is only as good as its teachers' (UNESCO, 2014: 9), and inspiring and informing teachers is the most important institutionrelated factor influencing student achievement today. This belief is reflected in the Irish context with the National Strategy drawing attention to the importance of professional development for academic staff, and recommends that all higher education institutions...must ensure that all teaching and learning staff are both qualified and competent in teaching and learning, and should support ongoing development and improvement of their skills' (Department of Education and Skills, 2011: 18).

The take-away message about the PDF, the recent pilot study implementation, and the range of ongoing PD projects and seminars funded by the National Forum are that it can encourage those who teach in HE across all disciplines and professional roles in teaching and learning to grow, and to develop their careers. The significance of this work is the continuous improvement of teaching staff, students, institutions, and the Irish higher education community. We firmly believe that this national PDF is essential for driving future improvement in, and continuing to raise the profile of T&L across the Irish HE sector.

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From the Margins to Mainstreaming

A Universally Designed and Inclusive Approach to Access and Participation in UCD



Dr Anna M Kelly Director, UCD Access & Lifelong Learning

he Higher Education sector in Ireland is seeking to open opportunities to underrepresented groups. The vision for access in HE is that the student population will reflect the diversity of the country's population. Dr Anna Kelly discusses this vision and how UCD is moving access from the margins to the mainstream by developing a universally designed and inclusive approach.

Introduction

Over the past decade, the higher education (HE) sector in Ireland has endeavoured to respond to a more diverse student population, and to open opportunities to under-represented groups, including students with disabilities, adults, those from communities experiencing low progression, part-time and flexible learners, further education award holders, members of the Traveller community, and asylum-seekers.

The vision for access in HE is that the student population will reflect the diversity of Ireland's population¹: a key element of the *National Strategy for* Higher Education to 2030 (2011) and the HEA National Plan for Equity of Access to Higher Education 2015–2019 (2015). This access policy document sets targets to increase participation by under-represented cohorts. It identifies integrating and mainstreaming access as a key goal. The HEA acknowledges the priority of establishing access infrastructure in higher education institutions (HEIs), and states: 'The next step is to integrate the principle of equity of access more fully into the everyday life of the HEIs so that it permeates all faculties and departments' (HEA, 2015a, p.25). Five HE policy objectives, one of which concerns participation, equality of access, and lifelong learning, are monitored via the 'institutional compact' (HEA, 2013a).

Internationally, Education for All urges the development of inclusive education systems (UNESCO, 2010), and the Bologna Process is aligning system components, including implementation of a two-cycle system, credit ranges, quality assurance, student mobility, and the social dimension, albeit slowly (European Commission, EACEA, & Eurydice, 2015).

There is increasing literature on the need for changed institutional practice as a key to ensuring access and participation of under-represented groups in HE (Bamber & Tett, 2001; Callaghan, 2000; Clarke, 2003; EAN, 1999; Gorard et al., 2006; HEA, 2006c; Osborne et al., 2007; Skilbeck & O'Connell, 2000; Verbeurgt, 2014; Wagner, 2002; Woodrow, 1999). Some studies point to the impact of institutional culture on widening participation and suggest that developing awareness of its influence is a prerequisite to a more inclusive institution (Greenbank, 2004, 2007; Wray, 2013). Leaders' awareness and understanding of access are also crucial (Aguirre & Martinez, 2002; Foucault, 1972; Pasque, 2010; Pasque & Rex, 2010; Bourdieu et al., 1994; Burke, 2012; Butcher et al., 2012; ECU, 2014).

Frameworks to support inclusion, and embed and mainstream equality of access in higher education, are also evident (Baker et al., 2004; Blythman & Orr, 2002; Bohle–Carbonnell & Dailey–Hebert, 2015; Clayton–Pedersen et al., 2009; Duvekot, 1999; EUA, 2008; Garvey & Treanor, 2011; Hill & Hatt, 2012; Jones & Thomas, 2005; Kelly, 2017; Layer et al., 2003; Lynch, 2005; May & Bridger, 2010; Schroeder, 2012; Shaw et al., 2007; Thomas, 2011; Thomas et al., 2005, 2009; Thomas & Tight, 2011; Tuitt, 2016; Williams et al., 2005; Woodrow & Thomas, 2002). Areas highlighted include institutional vision, leadership, culture, structures, staff development, admission policies, pedagogy, curriculum, assessment, student supports, targets, data collection, and resource allocation.

Nationally and internationally, there is agreement on the need to integrate the principle of equity of access into HEIs' everyday operations. Implementing this goal, however, presents challenges. As Osborne, Gallacher and Crossan (2007, p. 10) observe, 'It is not simply a question of the preparedness of students for the HE experience, though clearly many are not prepared for the demands of a still largely inflexible system, but it is also the degree to which institutions respond to the challenges of diversity.'

1. UCD's approach to mainstreaming the principle of equal access

UCD, with its proud history of inclusion and diversification, is well placed to address mainstreaming equity of access throughout the campus. This iterative process has involved interventions across key institutional dimensions, summarised below.

1.1. University strategy and structure

UCD's strategy commits it to becoming 'a pre-eminent diverse and inclusive scholarly community of students, faculty and staff' (UCD, 2015). This means designing the educational experience, student supports and facilities, and the built and technological environments around the needs of all students (Kelly, 2017). Such an approach ensures that access is embedded and mainstreamed throughout the university and is thus promoted, supported, and the responsibility of all (Kelly, 2017). Fundamental is the belief that equality of access incorporates both entry to UCD and access to an inclusive learning environment designed for all students, not just 'typical' or 'traditional' students.

The university established the UCD Widening Participation (WP) committee, which offers a formal mechanism to oversee and promote progress towards diversifying the student profile to reflect the general population's. The committee, led by Professor Grace Mulcahy, is aligned with the university's academic programme structures, and reports to the

The UCD Widening Participation committee offers a formal mechanism to oversee and promote progress. University Management Group, Equality, Diversity & Inclusion subgroup. This structural change ensures equality of access and participation is embedded in academic structures. Membership also includes the Graduate School Boards and policy and support services: Admissions, Recruitment, Teaching & Learning, Communications, Library, Access & Lifelong Learning (ALL)², and Student Access Leaders.³

Specialised services for students with disabilities, adult students, parttime students, and those from communities experiencing disadvantage have been reconfigured to reflect the *student lifecycle* model, that is, preparing for and entering higher education, graduating, and progressing their career, postgraduate study and personal goals. Services that were developed separately in response to the needs of particular student cohorts are now consolidated and located in the ALL Centre, whose mission is to be the 'bridge to inclusion' building relationships between communities that are 'distant' from higher education and the university community. This is done primarily by:

- » Developing and implementing responses to widen access and ensure participation by diverse student cohorts, including students with disabilities, mature and part-time students, and those from communities experiencing disadvantage
- » Supporting the university to integrate and embed the principle of equity of access throughout the institution.

1.2. Built and technical infrastructure

UCD's building programme addresses all relevant issues, including accessibility. Accessibility issues with existing built infrastructure were identified and prioritised through a campus audit. Accessible signage (on information and orientation) is also being developed. A project by students and staff led to the publication of Getting Around UCD Videomap Series.⁴ UCD student accommodation developed a system to prioritise and reserve accessible accommodation for students with particular requirements. In 2014, IT Services examined the accessibility of technical infrastructure, assistive technology supports required by staff, and campus navigation systems.

1.3. Academic integration

UCD is moving from parallel structures and processes to one where all programme-related matters are integrated with its academic governance structures. The university is implementing practical mainstreaming actions to ensure that the needs of students from under-represented groups are integrated in academic planning and delivery. For example, UCD established clear participation targets for under-represented student cohorts: these are now integrated with enrolment planning. Measurable indicators of success have been set: 33 per cent of undergraduates are to be drawn from these cohorts by 2020. UCD recorded 29 per cent in 2017.

The university has increased the number of undergraduate entry routes. Alongside CAO, seven pathways are offered:

UCD's building programme addresses all relevant issues, including accessibility.

Alongside CAO, UCD offers seven entry pathways.

- » **HEAR** (Higher Education Access Route), for school leavers who show evidence of socio-economic disadvantage.
- » **DARE** (Disability Access Route to HE), for school leavers who show evidence of disability.
- » **University Access Programme**, for applicants aged 22 who do not meet existing entry requirements. It provides the foundation skills to undertake a degree, and progression is guaranteed upon successful completion.
- » **Mature Years**, for those aged 23+ who wish to enter a full-time undergraduate degree programme for the first time (i.e., no previous Level 8 qualification).
- » **QQI-FET** award holders for entrants holding appropriate award at Level 5/6.
- » **Open Learning**, for all applicants who wish to study at undergraduate level on a flexible, part-time basis and can opt for a certificate, diploma qualification, or audit mode.
- » Lifelong Learning is offered to all applicants and provides a way to engage and experience a range of academic topics without a focus on assessment.

Part-time undergraduate students are ineligible for SUSI. UCD established a curriculum review process to make the taught programme portfolio more coherent. Teams leading this review were trained on inclusion: embedding the principles of universal design, producing accessible blackboard materials, and developing inclusive assessment strategies. UCD Teaching & Learning has embedded universal design principles in the UCD Professional Certificate in University Teaching, which is available to academic staff and frequently undertaken by new staff. UCD Access & Lifelong Learning has published the Universal Design for Curriculum Design: Case Studies from University College Dublin (Padden, O'Connor, & Barrett, 2017).⁵

Historically, the University Access Programme was the sole responsibility of ALL, but here too the university is progressing the inclusion agenda. The University Access course for Science, Engineering & Agriculture is now mainstreamed, and forms part of the programmes offered by the College of Science. Discussions are in progress to mainstream the University Access course for Arts, Social Science and Law.

Access to part-time education has been traditionally associated with UCD Adult Education. This provision has been innovatively reimagined as UCD Open Learning, opening hundreds of undergraduate modules to those who wish to study part-time. UCD Open Learning is mainstreamed and offered by 25 Academic Schools. Provision of student-related access support remains the primary responsibility of UCD ALL.

The university has developed other part-time courses to meet particular needs, including in Business, Arts, Social Sciences, and Public Health, without state financial support and despite the inadequacy of national policy on state support for part-time provision⁶. The HEA consistently includes flexible learning as an equity issue (HEA, 2004, 2010, 2015a), yet part-time undergraduate students are ineligible for SUSI.⁷ Currently 17 per cent of undergraduates in higher education and 8 per cent of university undergraduates are enrolled part-time (HEA, 2015c, 2015b).

1.4. Student supports

All academic programmes have a dedicated student adviser who helps students find pathways to address personal, social, and emotional issues, and advises on UCD policies, procedures, and services. Many specialist supports are also offered. The Library Services provide access to print and electronic resources, and study support. Support is also offered by the Mathematics Support Centre, overseen by UCD School of Mathematics & Statistics, and the Academic Writing Centre, co-ordinated by the UCD School of English Drama and Film.

Dedicated student supports are also offered to particular students groups, including international students. The ALL Centre provides underrepresented students with a wide range of access-related interventions, designed to help them become independent learners and engage with university life. These include information and guidance, financial supports, personal and social supports, individual needs assessment, specialist orientation, academic skills and learning support, disability and assistive technology supports, digital tools for learning, and occupational therapy.

To ensure seamless service delivery, an inclusive environment must integrate supports, and the challenge is to develop models of best practice that offer what is necessary for post-entry access supports, ensuring complementarity and alignment with mainstream services.

2. Learning thus far

UCD is moving access from the margins to the mainstream by developing a universally designed and inclusive approach. By using evidence and data, this national policy objective is being addressed systematically and sensibly. But it is a complex and challenging task that requires institutional and individual change (May & Bridger, 2010). This affects all facets of university life, and, when fully achieved, has the power to transform the university (Thomas, 2011a).

Mainstreaming access in HE has been a policy objective for some time (HEA, 2004, 2008, 2015a). HEIs are slowly becoming inclusive, though progress remains patchy. Kelly (2017) found early signs of mainstreaming and embedding equality of access, but also an absence of institutionwide policies and practices. Developing inclusive institutions depends on multiple factors – chiefly the priority given to this objective by the institution, allied to the support of senior leaders. Shared understanding is necessary for developing ownership and buy-in. The benefits for all students must be articulated. Sharing examples of inclusive practice is crucial, as is building and maintaining momentum. Processes and structures must be fit for purpose. Mainstreaming actions are warranted across key institutional dimensions. The Inclusive Design Framework proposed by Kelly (2017) offers a useful starting point and highlights four such dimensions: institutional vision and priority; organisational arrangements; teaching, learning, and assessment; and research and data collection

All academic programmes have a dedicated student adviser.

HEIs are slowly becoming inclusive, though progress remains patchy. From a policy perspective, moving access from the margins to the mainstream is but one issue, one challenge, and one priority on the HE landscape. It needs to be facilitated and promoted sector-wide. Pockets of inclusive institutional practice require nurturing and embedding throughout higher education. This strategic approach would enable tangible progress towards the national objective 'to integrate the principle of equity of access more fully into the everyday life of the HEIs so that it permeates all faculties and departments, and is not marginalised as the responsibility of the designated access office' (HEA, 2015a, p. 25).

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FOOTNOTES

- 1. http://hea.ie/policy/national-access-plan/.
- 2. The WP Committee receives expertise, advice, and operational support from UCD's ALL team.
- 3. Access Leaders are students affiliated with the ALL Centre. They are invited to apply for the position of access leader, which offers the opportunity to engage in work with ALL. Leaders receive training and contribute to activities such as orientation, shadowing days, events, and campus tours. Three Student Access Leaders are nominated to the WP committee by the Access Leaders Group.
- 4. www.youtube.com/watch?v=jOXzwqCxBIM.
- 5. www.ucd.ie/all/supports/informationforstaff/stafftraininganduniversaldesign/.
- UCD receives some Springboard funding for graduate level courses only. This is a state-sponsored labour market activation measure, which funds unemployed people to take up targeted part-time HE (HEA, 2012).
- 7. Student Universal Support Ireland (SUSI): https://susi.ie/.

Three new University Presidents



Professor Patrick O'Shea became the 15th President of University College Cork on 1st February 2017. A UCC Physics graduate and former Vice President and Chief Research Officer at the University of Maryland in the US, his particular area of expertise is in electromagnetic.

"My physics degree from UCC laid the foundations for a successful academic career in the US culminating in my current leadership role at the University of Maryland. I am delighted to return to lead my alma mater, a university of ancient heritage and modern focus."



Dr Desmond Joseph Fitzgerald became President of the University of Limerick in May 2017. A graduate of UCD Medical School, he spent time abroad as Director of Coronary Care and on the faculty in the Department of Clinical Pharmacology, Vanderbilt.

Back in Ireland, he is currently a Governor of the Mater Misericordiae University Hospital, Deputy Chairperson of the National Institute of Health Research TCC, and a member of the Scientific Advisory Board of the Institute of Translational Medicine and Therapeutics. He is an Adjunct Chair in Medicine and Pharmacology at the University of Pennsylvania and a member of the Association of American Physicians.



Professor Ciarán Ó hÓgartaigh

Professor Ciarán Ó hÓgartaigh is to succeed Dr Jim Browne as President of NUI Galway and will take up his new role in January 2018. He comes to NUI Galway from UCD College of Business where he has been Principal and Dean since 2011.

A first-class-honours and first-in-class graduate of NUI Galway, he said he was honoured to be appointed President of his alma mater and is looking forward "to coming home to the 'town and gown' which shaped me".

Widening Participation

Further Education Progression



Jennifer Murphy Admissions Officer, University College Cork

his paper describes the evolution of an entry route to University College Cork (UCC), established to attract students who hold further education qualifications. The journey began in the early 2000's and has resulted in widened participation of students who might not otherwise have considered pursuing a university degree. Traditionally, progression of students in Further Education and Training (FET) Colleges to higher education has been relatively low. In an effort to address this, the National Plan for Equity of Access to Higher Education 2015–2019 set a target to increase to 10%, by 2019, the ratio of those who gain entry to higher education based on a FET qualification. This measure was intended to counter the concentration of access to higher education at the point of completion of second level education, and the overall objective was to broaden the opportunities for entry to higher education.

The first admissions of students to degree programmes at UCC on the basis of FET qualifications occurred in 2002. Since then, this entry route now called the OOI FET (Qualifications and Quality Authority of Ireland Further Education and Training) route - has been on an upward trajectory (Figure 1). In 2017, UCC admitted 242 new entrants on the basis of their FET qualifications, which is almost 7% of all new entrants. The number of degree programmes that can now be accessed on the basis of holding a recognised FET qualification, at level 5 or 6 on the National Qualifications Framework, has grown to 41. The students admitted through this entry route in 2017 hail from almost 50 Further Education Colleges, and they hold one of the 80 QQI FET awards now recognised for entry to university.

The evolution of the QQI FET entry route has been an important feature in UCC's widening participation agenda, and it is a success story that continues to develop. In sharing our story, we hope that other HEIs will be inspired to evolve their own widening participation routes so that FET students nationwide are uninhibited in aspiring to higher education goals.

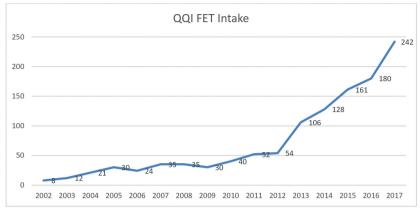


Figure 1. Intake of students to UCC via the QQI FET entry route

The tremendous organisational and structural changes in the FET sector in recent decades have had the unintended consequence of adding to the complexity of developing the FET entry route to higher education. Understanding these changes provides an important context to UCC's journey.

The FET landscape was simpler back in 1991, when the National Council for Vocational Awards (NCVA) was established as an executive agency of the Department of Education and Science. Its role was to set, monitor and certify national standards for vocational education and training programmes provided within the FET sector. The NCVA became extinct with the establishment of the Further Education and Training Awards Council (FETAC) in 2001, under the Qualifications (Education and Training) Act 1999. Following a similar fate to the NCVA, FETAC was subsequently dissolved, and its functions passed to Quality and Qualifications Ireland (QQI) in 2012.

Throughout the complex structural changes to the FET sector in recent years, UCC has continued to work in close collaboration with the FET colleges in developing the separate entry route for holders of FET qualifications at levels 5 and 6 on the National Qualifications Framework. The journey to establishing this new entry route was inspired in October 2000 at a meeting of the Committee of University Registrars where development of the link between NCVA level 2/FETAC Certificates and NUI degree courses was discussed. Subsequent to this meeting, in an effort to progress some FET links, UCC engaged in discussions with the FE Colleges in Cork.

In 2001 links were developed between two FETAC (NCVA Level 2) awards and UCC degree programmes: the Childcare (DCHSC) award was linked to UCC's BA Early Childhood Studies course, and the Business Studies (BBSXX and BBSAX) award was linked to UCC's Law degree. The entry route was established separate from the school-leaver route, so that eligible applicants would not compete for places on the Leaving Certificate points scheme. UCC launched a booklet, *Linking You to a Brighter Future*, which outlined the application requirements for candidates. An important feature of this entry route was that applicants with the relevant FETAC qualifications did not have to meet any other

matriculation requirements. A quota of places was allocated and eligible applicants competed for them on the basis of their FET award.

The FET Colleges welcomed the UCC initiative and acknowledged the breadth and depth of work that had been undertaken by the university in order to put these links in place. Over the course of the next decade, an increasing number of linked awards were recognised by the university and the number of degree programmes open to FET students continued to grow. One of the challenges in the FET sector was the system of alignment and recognition of old and new NCVA and FETAC awards, and over time the entry route became quite complex to administer.

Unintended layers of complexity crept in. Unintended layers of complexity crept in as UCC expanded its recognition of QQI FET awards and the number of degree programmes for which they would be recognised. The complexity arose partly due to the process which had evolved for recognition of FET awards by the university. The request to recognise an award would, more often than not, come to UCC's Admissions Office from an FETstudent who wanted to gain entry to a particular university course. Following a request of this kind, the Admissions Office would examine the curriculum of the FET award. If sufficient alignment to the UCC degree was evident, the Admissions Office would liaise with the relevant UCC programme coordinator, who would subsequently need to go through the university programme approval processes to have the award recognised for matriculation purposes. Typically, the programme would set out special matriculation requirements where students would need to achieve a certain number of distinctions, and in many cases the specific distinctions that would need to be achieved. For instance, in order to compete for a place in the BA Early Years and Childhood Studies degree, three possible entry routes were documented (Table 1).

Old Code	New Code	Course Title	Distinctions must include the following modules:
DCHSC	5M2009	Early Childhood Care and Education	D20159/ 5N1765 Caring for Children (0-6 years) D20005/ 5N1764 Child Development D20007/ 5N1773 Early Childhood Education and Play D20153/ 5N1770 Early Care and Education Practice
DSACX		School Age Childcare	L22679 Child and Adolescent Development L22680 Health Awareness L21824 Integrating Children with Additional Needs N22682School Age Children L22681 Relationships and Collaborations
DCXXX	6M2007	Early Childhood Care and Education	6N1942 Child Development 6N1945 Childhood Social Legal and Health Studies 6N1944Early Childhood Curriculum 6N1949Personal and Professional Development 6N1974 Equity and Diversity in Childcare

Table 1. Entry routes to CK111 Early Years and Childhood Studies in 2015

Applicants with the relevant FETAC qualifications did not have to meet any other matriculation requirements.

The new Quercus Talented Student Scholarship Programme at UCC gives QQI FET applicants the opportunity to apply for this prestigious award valued at up to \in 10,000 per annum. By 2015, 38 UCC programmes were included in the FET entry route and the university was recognising 66 QQI FET awards. This expansion resulted in a matrix of 1,300 possible entry permutations. The inherent layers of complexity, which included awards and module requirements, rendered the FET entry route increasingly confusing for applicants and FET Colleges to navigate and almost unmanageable for the Admissions Office from an administration perspective.

When the QQI began the process of re-validating and consolidating its FET awards, UCC saw the opportunity to reform the procedure for recognition of individual QQI FET awards. A proposal was made by the Admissions Office to the UCC's Academic Council to consolidate and simplify the entry routes. A common entry route was agreed for six of UCC's Science degrees, for instance, whereas previously each of these six degrees had set out its own separate matriculation requirements. The simplification process resulted in the recognition of an additional 25 FET awards.

Matriculation requirements were simplified to clearly set out the essential modules required to allow entry into specific degree programmes. Where appropriate, the requirement for distinctions in specified modules was removed altogether. Furthermore, many UCC degrees moved away from recognising a specified list of FET awards, to recognising the entire list of awards that are recognised for entry to any UCC degree programme. Streamlining the process for recognising new FET awards, and simplifying the articulation of matriculation requirements for clusters of UCC degrees, resulted in an entry route that was more accessible to applicants and more easily administered by the Admissions Office.

While the QQI FET entry route has made some progress in levelling the playing field for accessing degree programmes of study, QQI FET applicants do not have the same access to entrance scholarships that are awarded on the basis of Leaving Certificate points. However, with the advent of the new Quercus Talented Student Scholarship Programme at UCC in 2014, QQI FET applicants were afforded the opportunity to apply for this prestigious scholarship, which is valued at up to €10,000 per annum. We already have one student who was admitted on the basis of his QQI FET award and successfully competed for the Quercus Sports Scholarship. His story may well serve as an inspiration to future QQI FET applicants.

Cathal O'Hanlon is now in the second year of a BA Arts degree. A native of Cobh, Cathal applied to UCC after successfully completing the Heritage & Culture QQI/Fetac Level 6 course in Coláiste Stiofán Naofa in Cork. Cathal left school after his Junior Cert having been offered a two-year contract with Charlton Athletic FC in England. He applied for and was awarded the Quercus Sports' Scholarship due to his impressive achievements as a soccer goalkeeper. He had guarded the net on the Republic of Ireland International U15's, U16's and U19's soccer squad. Cathal is progressing well in his degree studies and currently plays on the UCC senior soccer team. In 2017, with the help of Cathal's goalkeeping abilities, UCC became the first College soccer team to win both the Collingwood Cup and the Munster Senior League in the same season. On Sunday 12th of November 2017, Cathal received an international cap from FAI CEO John Delaney at a ceremony in the Aviva Stadium. Cathal's story is an inspiring example of successful progression from further to higher education.



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