Annual Review July 2019—2020

CENTRE FOR TEACHING & LEARNING becomes CENTRE FOR TRANSFORMATIVE LEARNING

An internal review of CTL was completed in Summer 2019 resulting in a new title Centre for Transformative Learning resulting in four key portfolios, namely; **Student Engagement and Success**, **Transformative Pedagogy, Technology Enhanced Learning and Learning Analytics** and a new portfolio, **Curriculum Development,** held by Dr. Íde O'Sullivan who will lead on the development of the new curriculum development framework. The five learning centres continue to make a critical contribution to supporting students learning.
Dr. Mary Fitzpatrick was appointed Head of CTL in March 2020.

Transition to online learning and assessment

In response to the need to move to online teaching, learning and assessment, CTL developed a repository of supports and resources for those who teach. In collaboration with the Learning Technology Forum, CTL worked to develop and deliver CPD sessions to support faculty, and coordinated the new Learning Technologist Forum website as a central repository for information.
The Graduate Diploma in Teaching, Learning and Scholarship was regarded as key in facilitating the transition to the online learning and teaching environment, with many graduates, and current participants, referencing this professional development as critical for them in the transition to the online learning environment.

The Five Learning Centres made an immediate transition to online provision of support with forums and clinics operating well and student support continuing as before albeit in a different format. Student support was offered through a range of resources developed in collaboration with Student Engagement and Success colleagues in the library and in Student Affairs.

ALL-IRELAND CONFERENCE OF UNDERGRADUATE RESEARCH (AICUR)

All Ireland Conference for Undergraduate Research (AICUR) 2020

The 7th All Ireland Conference for Undergraduate Research (AICUR) was launched virtually on 30th April. A combination of 32 video and audio recordings, as well as written contributions, were hosted and launched via the CTL webpage. UL students provided a large proportion of the submissions, with delegates from Mary Immaculate College, NUI Galway, and Trinity College Dublin also represented. As a result of student commitment and resilience, there is now an impressive repository of conference contributions hosted on this year's AICUR webpage **aicur/alternative-aicur-2020**

Professional Development

UL Talks 2019

The UL Talks series was launched from the UL Twitter account on 27 April 2020. This suite of talks are designed to showcase UL teachers and provide a flavour of some of the conversations being initiated within our classrooms, laboratories and communities. This year, 13 of our UL Colleagues, from across the campus, shared their passion for teaching and brought their subject area to a wider audience in short video lectures. As you will see, students are encouraged to contribute and participate in lecturer's talks. All talks are available on the UL Youtube Channel.

12th International Conference for Engaging Pedagogy

The 12th International Conference on Engaging Pedagogy, chaired by Dr Mary Fitzpatrick (UL) and Karen Buckley (DCU), took place on 13th December at the University of Limerick. The theme of this year's conference was the Voice of the Educator with pre conference workshops, expert panels and 40 papers spanning research and practice across disciplines.
http://icep.ie/

Accredited Programmes

CTL's suite of accredited programmes on Teaching, Learning and Scholarship (Certificate (21 credits), Graduate Diploma (60 credits) and Master of Arts (90 credits)) provide high-level, scholarly, practice-based professional development for academic staff. The programmes provide the skills, competencies, insights and capacities that teaching staff need to bring the highest-quality teaching and learning experiences to their students while helping staff to manage and progress their own scholarly careers.

Thirty three members of An Garda Siochana graduated with the Specialist Diploma in Teaching, Learning and Scholarship.

The academic year 2019/20 saw 16 faculty members enrol on the Graduate Diploma in Teaching, Learning and Scholarship, with five candidates from the previous cohort opting to progress to the MA in Teaching, Learning and Scholarship in Higher Education.

Dr. Catherine Norton, graduate of the MA in Teaching, Learning and Scholarship in Higher Education, pictured with her supervisor, Dr Mary Fitzpatrick, at the conferring ceremonies in UL in August 2019.

Dr. Deirdre Brady & Dr. Mark Hardiman, graduates of the Graduate Diploma in Teaching, Learning and Scholarship in Higher Education, pictured with Course Director, Dr. Íde O'Sullivan, at the conferring ceremonies in UL in January 2020.

Introduction to Teaching in Higher Education Workshops

A short series of workshops was offered to all new teaching staff at the beginning of both Autumn and Spring semesters. These interactive workshops are aimed at new tutors and focus on some key areas related to teaching in Higher Education. They provide a set of ideas and methods to help prepare those new to teaching in HE in relation to developing their approach to teaching and learning, the components of class planning, engaging students and importance of assessment and feedback.

TEL Workshops and Seminars

IUADigEd Community Webinar: Technology Enhanced Assessment: Principles, Consideration & Practice Angelica Risquez delivered this webinar in collaboration with Fiona O'Riordan (DCU), and showcased a case study of authentic assessment in online teaching.

Learning Technology Forum CPD series

CTL has coordinated a series of activities through the Learning Technology Forum including a 'train the trainers' ABC Learning Design workshop for blended and online teaching , and CPD provision on Turnitin (CTL/ITD).

Open Educational Resources

As part of our ongoing promotion of open pedagogical practices, CTL accepted an invited presentation from the Centre for Online Learning in IT Sligo to deliver a workshop on open educational resources. In addition, following the publication of 'Towards a Devolved Model of Management of OER? The Case of the Irish Higher Education Sector' (Risquez, McAvinia et al, 2020), a thought-provoking Twitter thread and follow-up blog posts followed in collaboration with Phil Baker and Catherine Cronin.

Peer Observation of Teaching

The Peer observation network registered 52 faculty members over the Autumn and Spring semesters. A workshop to support engagement in this initiative was offered at the beginning of both semesters. Peer observation is a voluntary system of professional support that can help teachers gain valuable insights about their teaching performance in a confidential, trusting and formative climate. This supportive peer observation system is designed to help explore different approaches to teaching within a particular discipline, using the structured assistance of a trusted peer.

Summer Institute for International Academics Programme

The Summer Institute offers international academics the opportunity to develop their language skills along with their approaches to learning and teaching in an attractive and flexible residential package. The institute will develop the competency in English for international academics in a two-week block followed by a two-week block on the contemporary issues at the core of teaching, learning and scholarship in higher education. This institute is delivered in summer school format with morning and afternoon workshops.

Teaching Excellence Awards 2019/20

The University Teaching Excellence Awards endorse and recognise teaching excellence.   CTL is delighted to confirm the Faculty award winners for 2019/20:

Annual Faculty-led Award (Individual)

- Roisin Cahalan, Education and Health Science
- Luke Danagher, Arts, Humanities and Social Sciences
- Deirdre O'Loughlin, Kemmy Business School
- Muireann McMahon, Science and Engineering

Annual Faculty-led Award (Team)

- Pepijn Van de Ven, Maura Griffin, David Moloney, Nikola Nikolov, Science and Engineering

These candidates progressed to the institutional level award, which was adjudicated by external panel members: Dr Louise Naylor (University of Kent), Prof Patrick Ryan (UL), Prof Geraldine O'Neill (UCD), Vishwajeet Gain (Student Intern - Irish Universities Association) with Dr Mary Fitzpatrick chairing the meeting.

Congratulations to Dr Roisin Cahalan (School of Allied Health) who was awarded the Teaching Excellence Award (Individual) and to Dr Pepijn Van de Ven (Electronic & Computer Engineering), Dr Nikola Nikolov (Computer Science & Information Systems), Maura Griffin (Faculty of Science and Engineering Flexible Learning Centre) and David Moloney (Centre for Transformative Learning) who were awarded the Teaching Excellence Award (Team)

Regional Teaching Excellence Award

The Regional Teaching Excellence Award is a collaborative process between UL, MIC and LIT, which aims to showcase and champion outstanding practice in Higher Education teaching from across the Region.

Out of interested faculty from across the institutions, seven academics were ultimately shortlisted for this award. UL, MIC and LIT are delighted to acknowledge the following short-listed candidates:

- Norah Burns, School of Law, Arts, Humanities and Social Sciences, UL
- Antonio Calderon, Physical Education and Sports Science, Education and Health Sciences, UL
- Eoin Everard, Department of Sport, Leisure and Tourism, LIT (Tipperary Campus).
- Maeve Liston, Department of STEM Education, Faculty of Education, MIC
- Triona.McCaffrey, Irish World Academy of Music and Dance, Arts, Humanities and Social Sciences, UL
- Nora Ní Fhlatharta, Department of Design, Limerick School of Art and Design, LIT
- Anne Marie Morrin, Department of Arts Education and Physical Education, Faculty of Education, MIC

The external panel comprised Dr Rachael Carkett (University of Bath), Dr Martina Crehan (RCSI) and Dr Mark Glynn (DCU) with Dr Sharon Flynn (IUA) chairing the meeting.

CTL is delighted to announce that the recipient of this year's award is Eoin Everard, LIT.

The First Seven Weeks Programme

The First Seven Weeks is an initiative at the University of Limerick designed to provide strong, enhanced and targeted support to students during the very early weeks of their time as UL students. Recognising that successful early adjustment is linked to subsequent success, we provide a range of information, target our resources, and interact with our new students in ways that make them know we care about them and are interested in their successful adjustment. In 2019 UL celebrated its 10th anniversary of delivering this very successful programme.

'Making the Leap' Student Leadership initiative

The 'Making the Leap' Student Leadership initiative aims to create, develop and sustain academic culture and programme socialisation through student leadership. The approach utilises a peer leadership structure to aid the transition of first year students into their programme. The initiative is coordinated by the Student Engagement and Success Unit (personnel from the Centre for Transformative Learning and Student Affairs Division) in collaboration with the academic programme leader.

The academic year 2019/20 saw the rollout of the initiative to the Arts programme, and the second year with Computer Science. An extensive evaluation accompanies this initiative and the overall aims of the initiative are achieving their intended impact. This initiative works through the interaction of three layers of people within an academic programme; i) academic staff, ii) older programme peers appointed as student leaders, and iii) first year students. Each student leader meets with a small group of first year students a number of times over the first semester. Academic mentors from the programme will support student leaders.

Arts 'Welcome evening' to the Student Leadership Initiative in the PESS Hall

INDEx Survey

From November 4th – 24th 2019, INDEx, the Irish National Digital Experience survey, took place at the University of Limerick. INDEx is a national survey of the digital engagement, experiences, and expectations of students and staff who teach in Irish higher education and aims to encourage both students and those who teach to share their digital experiences and thus shape the future enhancement of digital teaching and learning, both institutionally and nationally.

The National Forum for the Enhancement of Teaching and Learning in Higher Education managed and coordinated the survey at a national level. Each of the thirty-two institutions that participated was responsible for the local dissemination and operation of their own survey in conjunction with their Students' Unions. CTL led the INDEx Working Group, which comprised student and staff representatives, to ensure the smooth operation of the survey at UL.

Nationally, the INDEx survey captured 25,484 responses from students and 4,445 responses from staff who teach. At UL, 1,378 students and 163 staff who teach responded to the survey.. The national report, including full and summary documents, can be accessed here

CTL in the National Context

CTL represented UL in two of the National Forum Advisory Groups
Teaching and Learning in a Digital World (Angelica Risquez) and
Professional Development (Mary Fitzpatrick).

National Forum Getting Started with Online Teaching open course
CTL, in collaboration with RCSI and Cork Institute of Technology (over 40 participants, 20 of them UL members), which was followed with a facilitators course (20 participants nationally, 6 from UL). On allocation of the corresponding digital badge, these participants will be able to deliver the course to others.

National Forum National Seminar Series 2019/20
CTL was delighted to be awarded funding from the National Forum to run two seminars in the National Seminar Series as below:

Engaging students in partnership with staff in learning and teaching, facilitated by Prof Mick Healey and Dr Ruth Healey on 28th November 2019, examined four ways in which students may be engaged as partners through: a) Learning, teaching and assessment; b) Subject-based research and inquiry; c) Scholarship of teaching and learning; and d) Curriculum design and pedagogic advice and consultancy.

Inspirational and Transformative Teaching facilitated by Prof Sally Bradley on 12th December, explored the concept of inspirational and transformative teaching in Higher Education examining, in an interactive and dynamic way, the many possibilities open to those who teach. Participants worked across disciplines on how to garner and enhance both their teaching practice and the engagement of their students within this space.

CTL in the International Context

Erasmus+ funded SHOUT4HE project where CTL led a working package, coordinated the partners meeting and the 'Sharing Open Educational Practices in Digital Learning' national multiplier event in collaboration with National Forum and the IUA, with participation of over 50 attendees nationally.

Digital Learning Readiness' Index by the EU CEPS: During Autumn 2019, Dr Angelica Risquez served as country expert for a research project led by the European Commission Centre for European Policy Studies, which has created a 'digital learning readiness' index for each member state of the EU https://www.ceps.eu/ceps-publications/index-of-readiness-for-digital-lifelong-learning/ The project involved an extensive research exercise of the strategies, implementation and evaluation of digital education across all Irish education sectors.

Erasmus+ teaching mobility at the Universidad Nacional de Educación a Distancia (UNED) in Spain, leading a distance module on digital identity in their online master's degree for career counsellors. CTL also authored a new online module for INTEF, the Spanish authority in academic development in the area of technology-enhanced learning.

Irish Delegates who attended the EUA conference

European University Association–
Internationalisation Thematic Peer Group

CTL hosted eight EUA partners from the Thematic Peer Group which focussed on Internationalisation in Learning and Teaching. The purpose of the group was to discuss and explore practices and lessons learnt in organising and implementing learning and teaching in European universities. This also led to contribute to the enhancement of learning and teaching across Europe by identifying key recommendations for institutions on Internationalisation. The report, EUA Internationalisation in Learning and Teaching, Thematic Peer Group (2019/20) was presented at the EUA Learning and Teaching Forum, Feb 14-15th
 Supplemented by Expert Voice publication Internationalisation: The challenge for teachers and students at home

HEA Innovation and Transformation Funded Projects
CTL was successful in both of its applications for the HEA Innovation and Transformative funding, which enhances the student and teacher experience of learning:
Regional Enterprise Academic Partnership, a collaborative project with Mary Immaculate College and Limerick Institute of Technology, aims to develop a best practice framework to integrate practitioner tutors into the process of delivering flexible upskilling programmes for enterprise. CTL are leading two key areas of the project:
Innovative assessment methods which the development of innovative assessment methodologies for moderators/tutors to assess students' collaborative activity on blended-learning technology programmes.
Students as partners for feedback in online environments, which seeks to devise a process of student consultation and feedback for module leaders to constructively engage with student feedback within the online space—the system will be part of the framework of best practice. The students as partners approach is in line with international best practice in curriculum design.

Enabling Change: Enhancing Digital Capacity in Teaching & Learning in Irish Universities (IUADigEd)

The Irish Universities Association (IUA) led project, Enhancing Digital Capacity in Teaching and Learning in Irish Universities (IUADigEd or EDTL), is a 3-year project involving seven Irish universities which began in January 2019. The project aims to enhance the digital attributes and educational experiences of Irish university students through enabling the mainstreamed and integrated use of digital technologies across the teaching and learning process. To achieve this, the project focuses on the professional development of all staff who teach or support learning in order to build their digital competence, confidence, and capacity. CTL was delighted to welcome David Moloney on board to lead this project in UL.

Pilot phase 1 of the project at UL took place in Autumn 2019 with participating educators from the School of Engineering and the School of Allied Health. The UL project lead worked with educators from both Schools to pilot, respectively, student peer review assignments using different approaches with Turnitin, and a digital assessment initiative in which students were tasked with creating an Information Sharing Animation (ISA), or animated video.

Pilot phase 2 of the project began in Spring 2020 with seven groups were successful with their submissions. The Covid-19 crisis interrupted project activities and consequently immediate support was provided to the successful UL groups who faced the emergency pivot to remote online teaching and assessment. The IUADigEd project team is working to create a collection of resources based around a common structure to support the transition to effective emergency remote teaching in the new academic year.

Strategic Alignment of Teaching and Learning Enhancement Funding in Higher Education

UL successfully secured €334,000 with five projects (≥85,000) and nine smaller projects of (≤10,000) funded after an internal screening process. These exciting projects, here by listed by project lead, will be completed by end May 2021 and will be showcased in the inaugural UL Learning and Teaching Conference in Spring 2021.
James Murphy & Clem O'Donnell, *Development of a Strategy and Framework for a Digital Learner Support Hub*
Sinead O'Sullivan, *University of Limerick Learning Analytics (ULLA)*
Arlene McCurtin & Anne O'Connor, *Integrated Formative Feedback for Learning and Growth (iFLAG)*
Liz Kingston, *Introducing Simulation Technology to Undergraduate Nursing and Midwifery Education: A scoping initiative*
Diarmaid Lane & David Tanner, *Spatial Skills Intervention; An Inter-Disciplinary Approach for Spatial Skill Development: Supporting First-Year Students in Working with Spatial Information*

The Local Enhancement Projects focus on supporting and highlighting the value of teaching and learning enhancement within Higher Education Institutions.

This funding stream responds to identified needs of higher education institutions, specifically from those with responsibility for driving teaching and learning enhancement at a local level. The aim of this T&L Initiative funding stream is to stimulate small-scale local enhancement initiatives, providing an opportunity for those who have had limited engagement to date. The funding is to seed fund a number of learning enhancement projects (LEPs) to support engagement with teaching and learning enhancement by individuals or small teams within an institution with the following projects progressing in UL, hereby listed by project lead:

Olivia Fitzmaurice, *Mathematics Tuto
Enhancement Programme*

Jean McCarthy, *Acta non verba [Deeds,
not words]: A living systems, phronetic, and technolog
-enhanced approach toward sustainable leadership
education across disciplines*

Caroline Murphy, *Enhancement of
Learning during Mobility (ELM Programme)*

Lydia Bracken, *Including Persons with
Intellectual Disabilities in Arts and Humanities at UL*

Kirsten Mulrennan & Rachel Murphy,
*Enhanced Engagement with Special Collections & A
chives*

Muireann.McMahon, *Real World Studio-
Aligning with UL's Academic Transformation*

Matteo Sachet, *Eirenteering project*

Mary Fitzpatrick, *Assessment
Community of Practice*

HEA funding Summer School

ICT Learning Centre successfully funded by HEA to run UL Cyber Camp and UL Cyber Camp Plus in summer 2020.

Advance HE Funding

Institutional accreditation impact evaluation Research project led by University of Plymouth successfully funded in February 2020.

National Forum/Higher Education Authority funded projects

A Collaborative Approach to the Development, Implementation and Integration of the National Professional Development Framework within the Shannon Consortium under the National Forum Enhancement fund 2018-19 (MIC led €150,000).

Department of Education & Skills:

Dr Gráinne Walshe collaborated with colleagues in the School of Education on a successful tender to the Department of Education and Skills to review the research literature to identify a set of effective interventions for addressing gender balance in STEM in primary and post primary education settings.

Regional Peer-Supported Learning Centre

AY2019/20 proved an interesting year for the PSLC, very much a year of two halves. Autumn semester saw the expansion of our programmes in the School of Allied Health in the Faculty of Education and Health Sciences with two new modules being supported. It also saw one of our best-attended semesters for all our supported programmes with 54% of targeted students (n=844) attending at least one session. This, in turn, saw an overall end of semester performance difference between those attending 4 or more sessions in the semester (>=50% of sessions) and those not attending any sessions of nearly 23%!

Autumn 2019/20 also saw the introduction of our BuddyPlus programme, a peer support programme designed to help international students of the ECE Masters programmes to acclimatise and integrate into studying here in Ireland. The pilot saw 82% of the targeted (n=45) students attending at least one session. The sessions, run weekly and facilitated by two peers who had been in UL for at least a year themselves, were a mix of social and academic meetings where the students had a chance to discuss amongst themselves issues they were having with subjects, modules, assignments, and adjusting to living and studying in Ireland. We even had a birthday party for one of our students! Feedback from the group was very encouraging with consensus to survey questions "Did you find the BuddyPlus initiative helpful/useful?" of 4.75/5 and "Would it be useful to future students?" of 5/5 (n=24).

Autumn also saw the acceptance of a proposal for the development of a Digital Learner Support Hub (DLSH), a centralised learner support site for online support offered by the five learner centres (LCs) in UL, by the National Forum on Teaching & Learning. This proved a prescient project and is currently, under the co-leadership of James Murphy (PSLC) and Clem O'Donnell (ICTLC), developing a series of online supports for modules and subjects supported by each of the LCs. This collaboration has helped each of us to learn more about deploying supports online and developing content for same. Our pilot was launched in February this year, with over 350 students enrolled on the site which is deployed through SULIS. Initial feedback from the student survey shows that the students were overall, very satisfied with the

support offered with a consensus of 4.36/5. So far, the response rate has been low (n=21) and we hope to have a clearer view before the next semester begins anew.

While DLSH offered an avenue for the PSLC to support our students online, and was used to support such programmes as our seminar series for 4th Year ECE students on Technical Report Writing, our PSLG supports took a massive hit as a result of the lockdown. While online alternatives to these sessions were offered, attendance was negligible due mainly, we believe, to the online support being offered by their own module lecturers and staff. We plan, for the coming academic year, to work closely with these module leaders to see what support the PSLC can continue to offer to the students of these modules in the new academic environment and to continue to develop and expand our online offerings.

Maths Learning Centre

www.ul.ie/mlc/

Following UL's closure and our move to a new dedicated Maths Learning Centre (MLC) Sulis Drop-in site which was joinable by any student, 531 students joined the site (accurate on 14 May). On this site, the MLC manager and ED developed and delivered live online support sessions for students which were also recorded and our hourly tutors developed and recorded asynchronous revision material for 8 modules. 368 attendances (from 197 students) were recorded at our live sessions. Further details on the total visits to the site are given below.

Visits to the MLC online support site (accurate May 14th):

Month	Total Visits	Number of individual students
March	1680	338
April	2991	404
May	749	179
Total	**5420**	**531**

In the MLC's anonymous end of year surveys the following was reported by students (n=35):

| Survey statement	% strongly agreeing
I appreciated the MLC online support that was made available during the university closure	**100%**
I benefited from the MLC online support that was made available during the university closure	**100%**
I needed the MLC online support that was made availa-	**97%**
I feel the MLC will contribute to a better grade for me	**94%**

ICT Learning Centre

http://ictlc.ul.ie/

The ICT Learning centre (ICTLC) delivered in excess of 580 hours of various academic enrichment and intervention schemes, and facilitated 2,878 student visits to these face-to-face or live online schemes of whom more than 80% were first-year, second-year, graduate diploma or higher diploma students. The upgrading of the centre's physical space was completed in January 2020 with 21 new workstations being installed (this included 6 additional workstations housed in a new central area) along with new projection equipment and seating.

With the closure of UL at the end of spring semester week 7, ICTLC support moved fully online from week 8 using UL's Learning Management System (LMS), sulis, to host an ICTLC Online site joinable by any UL student, 132 students subsequently joined this site. From this site, ICTLC staff delivered live Drop-In and targeted support sessions while also developing and uploading asynchronous content to support 7 core ICT modules. Online Drop-In sessions recorded 153 attendances from 58 individual students, while the live targeted sessions registered 130 attendances from 60 individual students. In addition, there were 734 visits by 128 students to the ICTLC Online site during this period to use its asynchronous learning content.
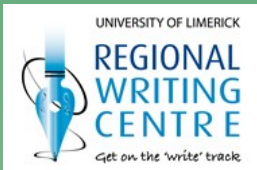
Regional Writing Centre

www.ul.ie/rwc

Writing Across the Curriculum activities continued and the RWC delivered over 50 workshops in the 2019/0 AY to over 800 students.

The RWC also worked to develop over 700 academic writers in collaboration with S&E, AHSS, CTL and GPS through modules such as Preparing for success (HP4001), Advanced Technical Communication for Engineers (ME6051) Writing into Academic Communities and modules on the Graduate Diploma/MA in Teaching, Learning and Scholarship, amongst others.

Three secondary school winners of the RWC's 9th annual National Secondary School Essay-writing Competition were congratulated in an informal online ceremony with UL President, Dr. Des Fitzgerald, and VPAA&SE Prof. Kerstin Mey.

The RWC is currently collaborating on a National Forum for the Enhancement of Teaching and Learning in Higher Education project, the Digital Learning Support Hub, led by Clem O'Donnell, ICT Learning Centre, and James Murphy, Regional Peer Supported Learning Centre, and an HEA's PATH project, led by Ciaran.OGallchoir, Faculty of Education, UL.

The RWC delivered a workshop in Portumna on writing in History at third level to the South East Galway Archaeology and Historical Society. Director, Lawrence Cleary, participated in 5 CPD events this academic year, four of them delivered by the US-based Association for Writing Across the Curriculum, of which he is a member.

Science Learning Centre Activities and Project 2019-2020

https://ulsites.ul.ie/slc/

The Science Learning Centre (SLC) provides support (through the Drop-in Centre and support tutorials) to undergraduates whose degree includes a science or engineering component. The SLC provided also drop-in support for students in the week preceding the repeat examinations in August 2019. It collaborated with the Maths Learning Centre to provide workshops during First Seven Weeks. There were approximately 1220 attendances at the Drop-in Centre during Autumn 2019 and Spring 2020, along with 1700 attendances at support tutorials for specific modules in the same period. In the course of spring semester 2020, the SLC moved all its services online, over the course of a weekend as a result of the COVID-19 campus shutdown. This presented huge challenges, but our tutors, who are PhD, medical and postdoctoral researchers in UL, rose to the occasion with great verve and innovation. We created a SULIS project site for the Science Learning Centre and continued to support students through to Week 16, via Drop-in and support sessions offered live online. Our tutors also developed a range of videos to support students asynchronously. Overall there were approximately 4730 visits to the new SULIS site, from 505 individual students, for either attendance at live events or to access videos and other resources, from March to June 2020.

In addition the Science Learning Centre, in partnership with the Department of Physics, is involved in outreach to increase the numbers of students in the discipline area, and especially to increase gender diversity in STEM. This it does primarily via the SOPHia Project: Science Outreach to Promote Physics to Female Students, led by Gráinne Walshe. The main project activity involves UL undergraduate facilitators co-creating and delivering a school visit workshop to lower second-level school students to encourage them to take physics as a Leaving Certificate subject. The SLC brought in €49,980.00 in SFI funding for its collaboration with the Department of Physics in 2019, an increase of €18,000 on the previous year's award. This is a project with national reach that in 2019/20 engaged with approx. 1000 school students, along with approximately 50 teachers and 35 schools, across all its activities. We partner with IT Carlow and Tait House Community organisation, with the support of the Institute of Physics Ireland.

The Science Learning Centre also received funding from the Faculty of Science and Engineering to support the development of online and other activities and resources to support discipline-specific learning in science and engineering modules. This greatly assisted the move online during shutdown. In addition the Science Learning Centre collaborated with colleagues in the other learning centres to participate in the National Forum for the Enhancement of Teaching and Learning in Higher Education project, the Digital Learning Support Hub, led by the PSLG and ICT Learning Centre.

In ongoing collaboration with the School of Education, the Science Learning Centre again in 2019/20 provided specific supports to underrepresented groups in Initial Teacher Education, funded via HEA PATH.

Gráinne Walshe collaborated with colleagues in the School of Education on a successful tender to the Department of Education and Skills to review the research literature to identify a set of effective interventions for addressing gender balance in STEM in primary and post primary education settings.

Gráinne Walshe was co-opted onto the National Council for Curriculum and Assessment's Senior Cycle Physics Development Group in September 2019. She is also a member of the Institute of Physics Higher Education Group committee which aims to support physics educators in higher education in Ireland and the UK, and of the EU Genera network which aims to address persistent under-representation of women in physics in universities and research institutes.

Latest Publications

Conference Presentations

Costelloe, L. and O'Sullivan, Í. (2019) 'A New Frontier for Professional Development: Developing Flexible Pathways to Recognition for Those who Teach in Higher Education'. Paper presented at SEDA Annual Conference, Leeds, UK, November 2019.

Fitzpatrick, M. and O'Riordan, F. (2020) 'Assessment in Transition: A Community of Practice to reflect and share', presented at Celebrating Learning Community: the transformative potential of partnership working in HE', University of Hull, June 29 – July

Gibbons, S., Murphy, M. and McGrath, K. (2019) 'Is student feedback enough to demonstrate impact? Triangulating student feedback on an extended transition programme', presented at European First Year Experience Conference, CIT, Cork, 17-19 June.

Gibbons, S., and Murphy, D.M (2020) 'The Good, the Bad, and the Ugly': evaluation of a Student Leadership initiative in the University of Limerick, Ireland, European First Year Experience Conference, 15-17 June 2020, Aarhus University, Denmark. [Postponed]

Girgensohn, K., Eriksson, A-M. and O'Sullivan, Í. (2019) 'A Cross-national View on the Organisational Perspective of Writing Centre Work: the Writing Centre Exchange Project (WCEP'). Paper presented at EATAW 2019 (European Association for the Teaching of Academic Writing), Chalmers University of Technology, Gothenburg, Sweden, July 2019.

Girgensohn, K. and O'Sullivan, Í. (2019) 'COST ACTION 15221 We ReLaTe - Case study workshop'. Workshop facilitated at EATAW 2019 (European Association for the Teaching of Academic Writing), Chalmers University of Technology, Gothenburg, Sweden, July 2019.

Lane, C. and Walshe, G. (2019), 'Student mathematical preparedness for learning science and engineering at university', in, Jankvist, U. T., Van den Heuvel-Panhuizen, M., & Veldhuis, M. eds., Proceedings of the Eleventh Congress of the European Society for Research in Mathematics Education (CERME11, February 6 – 10, 2019). Utrecht, the Netherlands: Freudenthal Group & Freudenthal Institute, Utrecht University and ERME. https://hal.archives-ouvertes.fr/CERME11/hal-02410409v1

Moloney, D., Cole, R., Tanner, D., McCurtin, A., and O'Connor, A. (2019) 'IUA Enhancing Digital Capacity in Teaching and Learning Project: Autumn Semester 2019 Pilot at the University of Limerick – Digital Peer Review Assignments and Student Produced Animated Videos' presented at International Conference on Engaging Pedagogy, University of Limerick, 13 December http://icep.ie/wp-content/uploads/2020/05/ICEP19_paper_33.pdf

O'Suilleabhain, G.; Risquez, A.; Cassidy, D. (2019) World Online Conference of Online Learning. [Invited Oral Presentation], 'Getting Started Online: A Case Study in Online Academic Development', Dublin Conference Centre.

Risquez, A. Cassidy, D.; ÓSúilleabháin, G., Garvey, R.; Spain, S. (2019) Online Continuing Professional Development: An integrative approach 5th International Conference on Higher Education Advances (HEAd'19) Universitat Politecnica de Valencia, [DOI]

Risquez, A.; McAvinia, C. (2019) 'Are local institutional repositories the way to go for OER curation in Ireland'? [Conference Organising Committee Chairperson], Open Educational Resources conference of the Association for Learning Technology (ALT), NUIG, Galway.

Walshe, G., Casey, V., Cauchi, M., Bochet, M., Cusack, A., Kavanagh, Y., McKeown, C., Quinn, M. and Clancy, I. (2019), 'Science Outreach To Promote Physics To Girls: An Investigation Into The Impact Of A School Visit Programme', presented at *ESERA (European Science Education Research Association Conference)*, Bologna, Italy, 60 - 30 August

Walshe, G. and Lane, C. (2019), 'An investigation into student mathematical preparedness for university level physics and engineering degrees', presented at *VICEPHEC (Variety in Chemistry Education/Physics Higher Education Conference)*, University of Bristol, 22-23 August

Research Publications

Cleary, L. (2019). At the Centre of Changing Contexts: A Writing for Life Centre. In Essid, J., & McTague, B. (Eds.). *Writing Centers at the Center of Change*. Routledge.

Johnston, J., Ní Ríordáin, M., and Walshe, G. (2019). 'Supporting key aspects of practice in making mathematics explicit in science lessons', *International Journal of Science and Mathematics Education*. https://doi.org/10.1007/s10763-019-10016-1

Risquez, A., McAvinia, C., et al. (2020). Towards a Devolved Model of Management of OER? The Case of the Irish Higher Education Sector. The International Review of Research in Open and Distributed Learning, 21 (1), 99-111. https://doi.org/10.19173/irrodl.v20i5.4545

Walshe, G. (2020), 'Radical Constructivism—von Glasersfeld', in Akpan, B. and Kennedy, T, eds., *Science Education in Theory and Practice*, Springer, NL. 54.5441/312-3-030-43620-9 [In press]

Walshe, G., Johnston, J. and Goos, M. (2020), 'Promoting 21st Century Skills through STEM Integration: A comparative analysis of national curricula', in, Leite, L.; Oldham, E.; Afonso, A. S.; Viseu, F.; Dourado, L.; Martinho, H., eds., *Science and mathematics education for 21st century citizens: Challenges and ways forward*, Nova Science Publisher: Hauppauge, NY [In press]

Walsh, J.; Risquez, A. (2020): Using cluster analysis to explore the engagement with a flipped classroom of native and non-native English-speaking management students. International Journal of Management Education. 18:2 https://doi.org/10.1016/j.ijme.2020.100381