

Quality Review
Peer Review Report
Department of STEM Education

November 2025

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Introduction

MIC's quality review process, as applied to both academic departments and professional services, was developed and continues to evolve in order to satisfy the College's Quality Policy and meet legislative QA requirements. MIC complies with the Qualifications and Quality Assurance (Education and Training) Act 2012, which places a legal responsibility on the provider and linked provider to establish procedures in writing for quality assurance for the purposes of establishing, ascertaining, maintaining and improving the quality of education, training, research and related services. (Part 3, Section 28).

These QA procedures must take due account of relevant quality guidelines issued by Quality and Qualifications Ireland (QQI) and/or predecessor organisations. QQI is the statutory body responsible for reviewing and monitoring the effectiveness of QA procedures adopted and implemented by higher (and further) educational institutions within Ireland.

The periodic quality review of functional areas (academic and professional service) within the College represents a cornerstone institutional QA/QE mechanism.

MIC's Quality Review Process

The purpose of the quality review process is:

- To provide a structured opportunity for the department to engage in periodic and strategic evidence-based self-reflection and assessment in the context of the quality of its activities and processes, and to identify opportunities for quality improvement
- To provide a framework by which external peers, in an evidence-based manner, can independently review, evaluate, report upon and suggest improvements to the quality of the department's activities and processes
- To provide a framework by which the department implements quality improvements in a verifiable manner
- To provide MIC, its students, its prospective students and other stakeholders with independent evidence of the quality of the department's activities
- To ensure that all MIC departments are evaluated in a systematic and standardised manner in accordance with good international practice and in support of the objectives of the College's Quality Policy
- To satisfy good international practice in the context of quality assurance in higher education and to meet statutory QA requirements as enshrined in national law

Overview of the Quality Review Process for Academic Departments

The MIC Quality Review process consists of three phases:

1. Self-Assessment

The department under review conducts a self-evaluation exercise and writes a self-assessment report (SAR).

2. Peer Review

A Peer Review Group (PRG) comprising external experts, both national and international, review the SAR, meet with Department members and stakeholders and produce a report (this report), which is made publicly available on the MIC Quality Office webpage.

3. Quality Improvement

The department considers the recommendations of the PRG, devises a quality Improvement Plan (QIP) to implement them and reports implementation progress to Quality Committee and MIC Executive Team.

Department of STEM Education

Established in Autumn 2017, STEM Education is the newest department in the Faculty of Education. The intent was to pool the collective expertise of academics from science education, digital technology, and mathematics education, thus facilitating curriculum enrichment, integrating innovative methods and technologies, and enhancing the STEM preparation of teachers for the demands of a rapidly evolving STEM landscape. The department comprises three specialist teams in mathematics, science, and technology education, with many possessing expertise in integrated STEM education. Department members demonstrate disciplinary knowledge across the STEM disciplines, with teaching credentials across primary and post-primary contexts and the majority having doctorate degrees in a diversity of STEM-related and complementary cognate areas.

The department contributes to teaching the Bachelor of Education – Primary Teaching (B Ed), B Ed International (B Ed Intl), B Ed in Education and Educational Psychology (B Ed Psych), Professional Master of Education (PME Primary Teaching) and Early Childhood Care and Education (ECCE) programmes. The innovative MA in STEM offered by the STEM Department was reconfigured in Autumn 2024 as an M Ed with Specialism in STEM Education.

Peer Review Group Observations

From the outset, the Peer Review Group was very impressed with the preparatory documents prepared by the Department, which included a self-study report, and a SCOT analysis. Both documents responded to the self-evaluation exercise with a comprehensive identification of strengths and challenges. From our first meeting with Department staff, to the final presentation of recommendations and commendations, the staff were available, helpful, and responsive. They engaged with notable enthusiasm, candour, and rigour throughout the self-evaluation. The team was reflective about strengths, and frank about challenges. It was clear that the Department's analysis was known to the administrative staff that we met who, equally, found the Department's deliberations useful and a strong foundation for progress. The Department's effective engagement prior to and during the Peer Review process enabled a high-quality review and demonstrates strong capacity for continued growth, and trust in Departmental leadership.

1. The Department's openness during the visit

The Department engaged with candour on all points that were raised by the Peer Review group. The preparatory documents, noted above, showed that the Department staff were engaged and open from the outset of the self-evaluation process. In all cases, when we met with individuals, attended lab classes or spoke with larger groups, our questions were respectfully and fully answered.

2. The quality of the Self-assessment Report (SAR)

The Self-assessment Report (SAR) was comprehensive and told an honest story about the department. Bolstered by the SCOT analysis, the SAR report was highly reflective of the department we observed during the visit. The SAR greatly helped develop us to identify strengths and challenges before we arrived; it guided our questions during the visit. The SAR report and the SCOT analysis informed our analysis and deepened our conversations, including visits to classrooms and the Maker Space. It allowed our recommendations to be grounded in the lived experience of the staff as they endeavour to meet the many demands placed upon them by the College, the region, and nationally.

Stakeholder feedback relating to the department and the extent to which the department is fulfilling stakeholder needs

The external stakeholder feedback from students, alumni, and community partners was consistently positive, praising the Department's responsiveness, clear communication, and impact focus. It is a testimony to the commitment of the Department that such a diverse group of stakeholders feels that their voices are heard, and that their needs are being addressed. The Peer Review group observed that the Department's staff are asked to fulfil many roles, each with complex responsibilities. Since the set of responsibilities to address stakeholders' needs is in addition to ongoing responsibilities of the Department – such as generating impressive productivity in research – the stakeholders' positive feedback serves as important evidence of the prosocial mission and impact focus of the Departmental staff.

Our report contains several recommendations. We recognize that each of these recommendations would require not only Departmental, but also College investments in staff time, resource allocation, and facility planning. We sincerely appreciate the input from the staff and administrators who helped shape these recommendations.

Chapter 1: Vision, Mission, Strategy and Governance

Commendations

1.1.1	Clear alignment with institutional priorities
1.1.2	Commitment to equity and inclusion
1.1.3	Strong teaching and research base in the service of supporting student learning
1.1.4	Commitment to nurturing a reflective culture

Recommendations (Please include a brief justification for the Recommendation)

	Recommendation	**Brief Justification**
1.2.1	Given the dynamic mission of the College, and changes in the external political, industry and educational environment, the PRG recommends that the Department develops a strategic plan to align their work with the college mission and opportunities in the external environment.	As in all institutions of higher education, any Department must be responsive to the larger actions adopted at the College level. College strategies, in turn, must respond to changes in community, regional and national priorities, including funding restrictions and opportunities. We recognize the disparity in funding for colleges compared to Universities in Ireland. The Department of STEM Education has demonstrated community, regional and national impact far in excess of the resources available for teaching, student teaching, and scientific contributions to the field. Developing a strategic plan will ensure the Department proactively aligns programmes, research, and resources with the College's evolving mission, shifting contexts and funding sources. A coherent roadmap codeveloped with college leadership would clarify priorities, strengthen accountability, and guide the Departmental staff as they invest resources, mitigate risks, and position the Department to capitalize on emerging partnerships, funding, and impact opportunities.
1.2.2	Better communication of department achievements to the college as a whole and outside stakeholders.	The Department's contributions to teaching, research and service, and its clear commitments to equity and inclusion, aligns with the mission of

		the College. To communicate the unique strengths of the Department, we recommend periodic review of the Departmental communication strategy to college leadership and to its external audiences. During the visit, we learned of the Department's contributions to national priorities such as Science Week, and emergent alumni networks nationally. We believe that there are other unsung projects and initiatives that may prove productive in communication campaigns. Enhanced communication of departmental achievements will increase visibility, build reputation, and demonstrate the ongoing value to the College and external stakeholders. Showcasing outcomes, impact, and partnerships strengthens advocacy for resources, attracts students and collaborators, supports fundraising and policy influence, fosters pride and cohesion internally, and ensures alignment with institutional priorities and agendas.

Chapter 2: Organisation, Management and Staffing

Commendations

2.1.1	Overall, excellent academic staff appointments.
2.1.2	Excellent organisational skills in the face of growing demands for space; large class sizes; administration overheads.
2.1.3	Teaching and research expertise well distributed across staff covering the key aspects of STEM education; complementarity in expertise among staff.
2.1.4	Staff have considerable experience and expertise as teachers, including in the compulsory school system.
2.1.5	All staff have a teaching qualification.
2.1.6	Preponderance of staff are permanent members of faculty.
2.1.7	Staff either hold a Level 10 qualification, or they are working towards attaining a doctorate.
2.1.8	A strong record of promotional success among staff in the wider College promotional/merit schemes.
2.1.9	Staff choosing to stay in the Department through their doctorate into their academic career, which reflects an attractive, collegial and positive workplace culture.
2.1.10	Highly committed staff working collectively to deliver the highest standards of STEM education.
2.1.11	Regular staff meetings (3 per term) with a rotating chair to promote inclusion and representation from staff.
2.1.12	Encouragement of staff to attend and participate in conferences/research events; compete for research funding, etc.

Recommendations (Please include a brief justification for the Recommendation)

	Recommendation	Brief Justification
2.2.1	The department should develop a mechanism to communicate to college leadership the department's needs regarding (1) work-load allocation models recognising teaching, PhD supervision, outreach, and school placement duties, (2) the design of integrated STEM teaching and research spaces, (3) number and type of required support staff and (4) storage for resources.	To communicate its needs, the Department may find value in developing and sharing a workload allocation model (WLAM). Framed in the collaborative manner already in place with college leadership, a WLAM would help ensure balanced and equitable workloads across staff, recognise the centrality of teaching, but also protect staff time for meaningful and sustained research activity. The WLAM should be developed to reflect the totality of work staff undertake, especially school placement. Consideration should be given to a wide range of models, choosing the WLAM that best fits the specific nature, profile and timing of work undertaken by staff. As important, since the

		mission of the College is dynamic, the WLAM should be shared with college leadership to ensure fair and equitable allocation of resources responsive to documented workload demands, and funding allocations.
2.2.2	Protection of staff time to engage in collaborative research and share activities	As noted, a WLAM is necessary to document the allocation of staff time with respect to teaching, classroom supervision, and community service. These data would enable College leadership to assess, protect and grow the Department's excellent record in research.
2.2.3	Creation and annual review of career development plans for academic staff.	To support and enhance their career development and promotion opportunities, staff may consider developing a performance for growth/professional development programme. This programme should be structured to advance the staff's academic goals, responsive to the WLAM data. A well-designed plan would inform colleagues of collaboration opportunities and enrich mentoring activities by more senior staff.
2.2.4	Appointment of a dedicated Departmental technician/technical officer.	From a staffing perspective, this is a priority. The STEM Department champions resource-intensive, hands-on resources for interactive teaching, which is best served by dedicated/bespoke STEM learning spaces with robust IT infrastructure. Currently, staff are expected to: (a) manage the resource-intensive transitions between classes, (b) manage the storage of equipment, and (c) monitor the replenishment/resetting/upgrading of equipment. These tasks should be handled by a dedicated technician to free up the Department's staff to implement the required, innovative learning, teaching, and research.
2.2.5	Alongside the appointment of a dedicated technician, teaching spaces need investment and upgrade for adaptable, flexible and bespoke STEM learning design.	Currently, the staff works in inflexible, fixed-furniture, limited-space PC labs. With staff and student input, these spaces need to be redesigned to constructively align with new and emerging, hands-on STEM learning technologies, and to enrich instructor-student and peer-to-peer student engagement.

Chapter 3: Design, Content and Review of Curriculum

Commendations

3.1.1	Designing innovative, research informed undergraduate and postgraduate programmes in STEM education
3.1.2	Demonstrating leadership at the national level in primary teacher education

Recommendations (Please include a brief justification for the Recommendation)

	Recommendation	Brief Justification
3.2.1	Consider ways of operationalising arts education to integrate it into STE(A)M	The MIC STEM Education team was commissioned by the Department of Education to conduct a literature review on promoting STEM learning in early years, primary and post primary education settings (published in June 2022). The staff is well-placed to add arts activities to their existing integrated STEM framework. We believe that the Department's unique record of achievement in Lesson Study provides fertile ground for faculty/teacher collaborations in STEAM education. Active collaboration with MIC colleagues in Arts education, alumni, and community experts (e.g., the Maker Space) would provide opportunities for proposing and evaluating pilot STE(A)M activities.
3.2.2	Continue to investigate ways of developing integrated STEM while avoiding silos in the constituent disciplines.	The Department benefits from having staff with strong disciplinary expertise in each of the constituent STEM disciplines. This expertise is already applied to their teaching, curriculum design, and research. However, there are emerging expectations in the primary school curriculum for, and international trends towards, integrated STEM education. These expectations introduce new tensions to maintain disciplinary depth while aiming for holistic breadth in STEM teacher education. While we support this direction, we recognize that pursuing this goal adds demands on staff time and resources. The Department has invested in staff resources in artificial intelligence (AI) and robotics, which, given AI's multimodal capabilities may provide additional avenues for

		integrating STEM across the curriculum. AI applications in education are poorly understood, and may introduce novel challenges. Perhaps external funds may be obtained to evaluate staff efforts towards integrated STEM education.
3.2.3	Investigate ways of expanding the flexibility and reach of Master's level programmes to respond to the needs of diverse schools, MIC students, community activities, industry bodies, and emerging professional communities of teachers.	Principals, teachers, and community-based educators who are alumni of the STEM Masters programme hold the programmes in high regard and describe its positive impact on their classroom practice and professional learning communities. There is potential for the Department to tap into this enthusiasm and build mutually beneficial relationships with alumni, who could become a source of future postgraduate students and a sounding board for programme innovation. For example, there is a potential market for shorter offerings such as stackable microcredentials, as well as expansion to new markets internationally and in Ireland. As with each of our recommendations, we are mindful of the additional demands that this recommendation may place on Departmental staff, and College resources.

Chapter 4: Teaching, Learning, Assessment and Feedback

Commendations

4.1.1	Positive reviews of the department's varied, inquiry-based teaching and assessment practices by national, college and local stakeholders (students, alumni, schools)
4.1.2	Strong commitment to research-led teaching and teaching-led research.

Recommendations (Please include a brief justification for the Recommendation)

	Recommendation	Brief Justification
4.2.1	Explicitly communicate to college leadership the currently unsustainable demands of implementing inquiry-based teaching and assessment, given present configurations of space, resource, time, and support available.	As a Review Group, we note that the workload involved in designing, preparing, and delivering teaching sessions—often multiple times back-to-back—is substantial. The preparation time required places a significant burden on STEM teaching staff and reduces time available for research, administration, and pastoral care. We also note reported constraints around space and storage, alongside limited support and technical staffing, which may exacerbate operational pressures and potentially compromise safe working practices. We therefore recommend that the Department review its resourcing model for inquiry-based teaching. The work/load models are in need for development as soon as possible. In particular, routine preparation and set-up tasks should be delegated to appropriately trained technical staff, and shortfalls in space and storage should be addressed. These measures would alleviate academic workload, support safe delivery, and help sustain staff enthusiasm for inquiry-based learning across teaching teams. As a Review Group, we note the concern that staff have about the absence of a dedicated STEM education space, as identified in the self-assessment and in meetings. Staff indicate that this

		limits their ability to plan, facilitate, and organise teaching, research and outreach activities. We recommend that the School and College prioritise establishing a dedicated, appropriately equipped STEM education and outreach space to support consistent scheduling, safe storage of materials, and sustained engagement with schools and community partners. The absence of shared metrics and a transparent data dashboard for workload and space allocation may deny College leadership greater insight into equity and fairness; and the extent to time for faculty research is being limited by other considerations.
4.2.2	Articulate the fundamental importance and the additional demands of meeting school placement requirements for a large catchment area with large number of students.	The Teaching Council of Ireland has determined that 25% of student time over the four years of concurrent programmes and 40% of student time over the two years of consecutive programmes should be allocated to school placement. It is a requirement that all student teachers are supported and assessed by two or more Placement Tutors, who may include full-time and part-time academic staff as well as occasional staff. We observed from sample staff timetables that school placement visits take up around two days per week across the academic year. This is in addition to regular teaching contact hours (currently around 9 hours per week). We recommend that the College and Department of STEM Education devise strategies for incorporating school placement visits into a Workload Allocation Model that acknowledges the substantial time commitment involved.
4.2.3	Investigate more time-efficient ways of managing school placement.	MIC is the only higher education institution outside Leinster offering undergraduate programmes in primary initial teacher education (https://www.teachingcouncil.ie/how-to-become-a-teacher/primary/). This results in time-consuming travel by school placement tutors who are servicing a very large catchment area. During the COVID pandemic, alternative approaches involving online briefings and follow up meetings with student teachers were implemented. Given

		the very substantial commitment to school placement visits, we recommend urgent consideration of more time-efficient and productive approaches.

Chapter 5: The Student Experience

Commendations

5.1.1	Students praise the collegial, caring and responsive staff that at commitment to the students' well-being and success
5.1.2	The students also valued the experiential and inquiry-based pedagogies they are offered
5.1.3	The students commend the number of channels to communicate with staff, in person, moodle and email.

Recommendations (Please include a brief justification for the Recommendation)

	Recommendation	**Brief Justification**
5.2.1	More timely communication of the learning educational needs summary report (LENS) to the faculty.	The data in the LENS report is time sensitive. Faculty require due notice to understand and respond to individual student's needs. Early communication of the LENS report would allow adjustments to be made for teaching and learning and assessment in a timely manner and reduce the need for unplanned adaptations to teaching by teaching staff.
5.2.2	Recommitment to diversity and inclusion for all students.	As the population in general and the student body becomes more diverse, the Department's ongoing commitments to equity, fairness and inclusion is welcome and should be reaffirmed. Renewed commitment to diversity and inclusion ensures equitable access, belonging, and success for all students. It improves retention and attainment, enriches learning through diverse perspectives, and strengthens the Department's reputation.
5.2.3	Attention to the reconfiguration of teaching spaces that aligns the departments commitment to constructionist, and inquiry-based teaching and assessment.	Students' learning needs are best met with active, hands-on and minds-on activities. The faculty are dedicated to constructionist and active learning pedagogies. Such pedagogies require dynamic and reconfigurable instructional and research spaces. Further, STEM resources require locked storage with easy access. Flexible layouts and purposeful design will improve engagement and inclusion, maximizes

		space utilisation, and signals the Department's commitment to student-centred learning.

Chapter 6: Research Activity & Community Outreach Activity

Commendations

6.1.1	Sustained outstanding research record that spans all aspects of STEM, is integrated into teaching and curriculum design, evidenced by achievements that far exceed typical benchmarks for a departments of its size
6.1.2	Collaborative research culture, including effective mentoring of early career staff into research grant and tender applications, conference participation, and publishing
6.1.3	Supervision of research undertaken by undergraduate, masters, and PhD students which contributes to the national STEM research agenda
6.1.4	The department has a long history of impactful community outreach, delivered in diversity of locations (offsite in schools, libraries, theatres, education centres, industry settings, community centres etc.).
6.1.5	The design and deployment of the Craft Maker space with industry partnerships and the service that the space provides supports local school to engage with STEM

Recommendations (Please include a brief justification for the Recommendation)

	Recommendation	Brief Justification
6.2.1	Develop a departmental research plan that aligns individual research interests with national STEM education policies and priorities.	The Department has a rich blend of experienced high quality researchers and early-career academics. The Department is well placed to influence and benefit from MIC strengthening research infrastructure and information systems investments. Future work should include: (i) Developing a distinctive departmental research vision and 5-year plan that aligns individual staff research interests with MIC strategic plan and national priorities (STEM Education Policy 2017-2026 and Implementation Plan). The plan should include supports for the Head of Department (externally sourced if necessary) to support her in thinking strategically about the next stage of development for the Department.

		(ii) Building on the research mentoring strategies already in evidence to develop personal research plans for all academic staff, especially for early career staff, with goals and pathways that are reviewed annually as part of a formal appraisal process. Personal plans should include opportunities for PhD supervision, which should be appropriately recognised in the MIC workload allocation model.
6.2.2	Collaborate with the research office and colleagues in other institutions to access timely information on research grant, tender, and other funding opportunities.	The MIC research office is severely under-staffed and at present struggles to provide university-level support for research. Nevertheless, relatively generous internal funding is available for conference attendance and small-medium size research projects. However, the latter come under public sector funding rules, which may need to be better understood by Department members in order to identify the best ways to frame a budget for maximum benefit and minimum administrative burden. Internal funding should also be used strategically to build towards later applications for external funds. To qualify early-career researchers to pursue external grants, MIC may wish to fund a targeted seed-funding mechanism to generate pilot data for early stage research, and to translate research findings into applications for scaling of evidence-based practices.
6.2.3	Develop strategies to increase the visibility, within the college and beyond, of the department's research achievements.	The MIC research infrastructure and information system (MIRIS) should be fully utilised to support documenting the Department's achievements. We also recommend that the Department collect and organise evidence of their substantial research impact beyond academia (e.g., see comments about community outreach) and use this information to create brief research impact case studies for the MIC website. An increased social media presence built upon published materials and evidence-based practices being used by alumni (e.g., a dedicated YouTube channel) would serve current and prospective teachers. AI tools now provide off-the-shelf tools (e.g., video editing) that may simplify outreach activities.

6.2.4	Investigate a wider range of funding sources, such as business, industry, and philanthropic partners, that can further enhance the department's and college's visibility and reputation.	Regional and national industry partners (e.g., tech and pharma companies) seek to demonstrate good corporate citizenship and may be interested in supporting community outreach activities that align with their own strategic goals. For new infrastructure on campus, the College may consider naming rights for new instructional/research spaces as an additional revenue stream. The Department's strength in research, especially in Lesson Study, and frontier work in AI, may prove attractive to schools and community partners as authentic contexts for evidence-informed instructional and training practices.
6.2.5	Integrate community outreach with research and teaching in ways that are mutually reinforcing.	Community outreach has many benefits, and already the Department has a sound track record. However, strategic outreach activities must be sustainable and, will require reciprocal investments and support from community partners. We believe that a shared and transparent audit of outreach activities with these requirements in mind may inform future partnerships.

Annex 1: Peer Review Group Membership

Professor Anthony E. Kelly (Chair of the Peer Review Group) is professor of Educational Psychology at George Mason University (GMU) in the College of Education and Human Development. He earned his PhD in Educational Psychology at Stanford University and began his career as an instructor at Rutgers University before moving to GMU. He has served, intermittently, as a program officer at the US National Science Foundation (NSF). He served as a senior advisor to the NSF from 2014-2018, and in 2009 as a senior advisor in the US Department of Education. From 2009-2010, he was a Fulbright New Century Scholar. He is interested in applications of AI to all aspects of learning, and definitions of intelligence. He has contributed to the methodology of design-based research in educational settings.
Dr Alison Cullinane is a Senior Lecturer in Biology Education and Portfolio Director in the School of Biological Sciences at the University of Edinburgh, where she leads curriculum innovation and reflective learning initiatives with students. Her academic work bridges science education, the nature of science, practical science assessment, and reflective practice. She was appointed Portfolio Director in 2022, after serving as a Post-doctoral Researcher and Departmental Lecturer at the University of Oxford's Department of Education, as well as teaching and research roles at multiple institutions in Ireland (Limerick, and Galway). Her research focuses on developing evidence-based approaches to science teaching and learning, exploring how scientific methods are understood and assessed, and advancing reflective practice through portfolio use in STEM education. She has contributed to major projects such as Discover Sensors, Mallow Project, Project Calibrate and the Fedora Project and published widely on topics including the nature of science, teacher education, and assessment design.
Emeritus Professor Merrilyn Goos is a mathematics educator who has worked in universities in Australia, the UK and the Republic of Ireland. At the University of Limerick from 2017-2021 she was Professor of STEM Education and Director of EPI*STEM – the National Centre for STEM Education. Her research has investigated students' mathematical thinking, the impact of digital technologies on mathematics learning and teaching, numeracy across the curriculum and across the lifespan, mathematics teacher education, and interdisciplinary STEM education. In 2004 she won an Australian Award for University Teaching and in 2008 an Australian Award for Excellence in Education Publishing as lead author of *Teaching Secondary School Mathematics* (Routledge). Merrilyn has served as Editor-in-Chief of *Educational Studies in Mathematics* and President of the Mathematics Education Research Group of Australasia. In 2022 she was awarded the MERGA Career Research Medal for sustained and distinguished achievement in mathematics education. She is currently President of the International Commission on Mathematical Instruction (2025-2028).

Professor Tony Hall is Professor of Education in the School of Education, and Director of Educational Design Research for Designing Futures, University of Galway. Tony is a Co-Founder of T-REX: Teachers' Research Exchange national teacher-researcher digital platform. He is a former second-level teacher (Physical Education, English, ICT, Maths) and School ICT Coordinator. Within University of Galway's teacher education programmes, Tony teaches English Subject Pedagogics, ICT/Digital Education, Educational Design, and the History and Philosophy of Education. In 2021, he was a recipient of a Teaching Excellence Award. Tony's research interests focus primarily on design-based research, and he has led transnational consortium projects funded by national and international organisations and stakeholders, including Horizon Europe and the European Institute of Innovation and Technology (EIT). Tony has supervised 11 PhDs to completion, and is Director of Doctoral Studies in the School of Education. He has served as editor-in-chief for two of Ireland's flagship educational publications: *Irish Educational Studies* (Co-Editor, 2015-2020; General Editor, 2020-2023) and *Education Matters Yearbook: Ireland's Educational Yearbook* (Editor, 2012-2014). Tony's monograph on design-based research and educational technology was published by Palgrave Macmillan in 2018. Since 2007, he has been an invited expert on educational technology for the European Commission; and advises the Teaching Council on educational research.
A Member of the Executive of the Educational Studies Association of Ireland, he is local chair for the 50th Anniversary ESAI First Meeting of Scholars/Conference, University of Galway, May 2026.
Tony has served as both Head and Deputy Head (two terms) of the School of Education, and inaugural Vice-Dean for Learning, Teaching and Assessment in the College of Arts, Social Sciences & Celtic Studies, University of Galway. He previously held research positions at the Interaction Design and Enterprise Research Centres, University of Limerick; Learning Sciences Research Institute (LSRI), University of Nottingham; and the Center for Informal Learning and Schools (CILS), The Exploratorium, San Francisco.

Annex 2: Schedule of Stakeholder Meetings

Meeting	*Stakeholder*
1	**Dean of the Faculty of Education**, Prof Emer Ring
2	**Head of Department**, Prof Aisling Leavy
3	**Department of STEM Education Staff**
4	**Early Career Researchers** within the Department of STEM Education #1
5	**External Stakeholders**
6	**Director of Postgraduate Studies – Faculty of Education**, Dr Emma O'Brien
7	**Director of Teaching & Learning**, Dr Katherine Whitehurst
8	**Director of Research**, Dr Richard Butler
9	**Limerick Festival of Science**: Undergraduate B.Ed. 2 students
10	**Early Career Researchers** within the Department of STEM Education #2
11	**Limerick Festival of Science** Enterprise & Community Engagement staff in CRAFT Maker Space
11	**Alumni** of MA in STEM Education Programme/ Undergraduate STEM Specialism
12	**Director of Estates & Sustainability**, Ms Rachel Costello