

TEACHING AND LEARNING CASE STUDY	
Name of Institution/ Organisation	University of Limerick
Who led the initiative?	Dr Declan Phillips from the School of Engineering & Eoin Quill from the School of Law
Date and timeframe of the initiative	The case study presented in this document has been running for the past thirteen years. It takes place in the autumn semester and runs over the entire semester.
What was the reach of the initiative?	The collaborative project involves final year civil engineering students and final year construction management students (circa 110 students). These students work with approximately the same number of second year students studying tort law. The initiative reaches 230 students each academic year.
Initiative Title	“Undergraduate Learning Experiences from Engaging in an Interfaculty Cross-Disciplinary Learning Activity – Engineers act as Expert Witness in Moot Court.”
Aims/ Objectives	<p>Most professional programmes taught at university are delivered using a siloed approach. Medical doctors are educated by and with doctors, engineers with engineers, lawyers with lawyers and so on. In the working world however, these professions ultimately end up interacting be it an engineer working with a doctor to develop a design brief for a new hospital or an engineer advising a lawyer on the merits of their case involving a construction failure. Each profession has its own rigour and its own language. This initiative aims to:</p> <ul style="list-style-type: none"> • Encourage diverse professions to interact as part of their formal education. • Broaden understanding of other professions. • Learn the key terminology of respective professions so effective communication can take place. • Provide a meaningful context for learning the substance and skills of the profession using real case histories. • Develop organisational and collaborative skills. • Develop enthusiasm and motivation for learning.
Rationale and Identified Needs	The rationale stemmed from Declan Phillips’ reflections on how his undergraduate education as a structural engineer served him in professional practice. These ponderings convinced him that a change from the traditional didactic approach (adopted in most third level institutions) to a more constructivist or student-centred approach would result in better graduate outcomes. By employing these approaches, graduates would

	<p>develop the ability to solve open-ended complex challenges by working collaboratively in small groups, supported by ‘just in time’ content delivery and the requirement to frequently communicate their work in public fora. With these criteria in mind, he assembled the case data from numerous forensic engineering projects from his time working in industry. Moving to the University of Limerick he met a kindred spirit in Eoin Quill. Eoin had just acquired a new moot court and was seeking to use it to maximum effect in his teaching of tort law – out of this, our sustained collaboration was born.</p>
<p>Frameworks, Policies, or Strategies Aligned (internal, local or national)</p>	<ul style="list-style-type: none"> • Aligns with the strategic priorities of the National Forum for Teaching and Learning (Our Priorities - National Forum for the Enhancement of Teaching and Learning in Higher Education) in that it promotes the skills required for student success and implements teaching across disciplines. • Progresses Action for Wisdom: Learning, Teaching and Assessment strategy 2022-27 in particular the strategic aim of encouraging sustainable inter-/cross-/ trans-disciplinarity through innovative assessment approaches that develop student skills. • Develops the strategic aim of embedding the University of Limerick’s graduate attributes, namely, Articulate, Agile, Courageous, Curious and Responsible people (The UL Graduate Attributes University of Limerick)
<p>Summary</p>	<p>Now in its 13th year, this interfaculty collaboration involves students studying tort law – the lawyers; hiring students studying forensic engineering and ethics – the engineers; to investigate construction-related failures. The engineers prepare a report on the failure case documenting their investigation, analyses and findings. Subsequently they present in moot court as expert witnesses during the trial. In advance of the trial, both sets of experts exchange reports so areas of agreement can be identified, thus allowing each side to concentrate on the contentious issues as they prepare to assist the court in making a fair and balanced decision. The trial is presided over by three student judges, who weigh up the evidence and make a ruling on the case.</p> <p>All the cases are real, and many are drawn from the engineering lecturer's experience working as a forensic engineer in the USA. The lawyers and engineers work in small teams throughout the semester to build their case. Data on the failure incident is provided in response to 'requests for information' from the engineers on both the plaintiff and defence sides. Only requested information is provided, thus failure to ask the important questions, due to not fully understanding the technical reasons for the failure can negatively affect the engineer's performance in the witness box. The proceedings are video recorded, which enables both cohorts to review their performance and work to improve their communication skills for the future.</p>

	<p>The collaboration is set to extend to journalism students this year (2024/25). The journalist will participate by interviewing lawyers and engineers immediately after the court decision is announced. The journalists will focus on interviewing the engineers from both the plaintiff and defence sides that were not involved in delivering expert evidence. The interviews will be summarised in a newspaper column report.</p> <p>All these activities mirror everyday practice including the challenges of organising meetings where teams have conflicting academic timetables.</p>
<p>Did you collaborate with internal and/or external stakeholders to deliver?</p>	<p>The stakeholders are all internal collaborators. Staff and students from two programmes in the Faculty of Arts Humanities and Social Sciences (AHSS) collaborate with staff and students from two programmes in the Faculty of Science and Engineering.</p>
<p>Organisation and Planning</p>	<ul style="list-style-type: none"> • As the initiative has been in operation since 2011, the organisation and planning activities have been streamlined. • At the start of the semester the law and engineering staff meet to plan the collaborative activities for the semester. This involves reviewing and updating the cases to be used and scheduling independent master classes for law and engineering students. These are arranged on a ‘just in time’ basis to coincide with the needs of each cohort. The engineering seminar usually takes place in the early part of the semester while the law seminar is delivered later in the semester as the engineers are preparing for court. • During a two-hour seminar, the law students learn about civil engineering and how they are likely to interact with engineers in their professional careers. Similarly, the engineers attend a law seminar where they learn about relevant case law associated with delivering expert testimony. • Engineering and Legal teams for the plaintiff and defence are created early in the semester and contact details for the leaders of each team are provided. • The law lecturer allocates the cases to each legal team, and they reach out to their assigned team of experts to share the legal brief. • A schedule of moot court dates is developed and the cases are usually heard over the final three weeks of the semester.
<p>What resources did you need?</p>	<ul style="list-style-type: none"> • Moot court facility, staff to facilitate the moot court and to record the proceeding, legal gowns for the lawyers and judges. • There are no financial requirements.
<p>Has it been evaluated? How successful has it been?</p>	<p>The initiative is being evaluated on an ongoing basis. Engineering students feedback annually through written reflections, while law students complete an essay based on the moot as 50% of their assessment for the module.</p> <p>Some interesting engineering reflections have been received, for example:</p>

	<p><i>“I have learned a great deal during this experience and I believe I am better prepared for professional life as a result. I have learnt a lot about teamwork during my time here but this project took it to the next level and was a real eye opener for me. Before, we generally worked in teams with people of the same discipline as me; who had a similar level of knowledge about the project topic and understanding of the material.</i></p> <p><i>This time however our team consisted of law students who had no previous experience with building materials such as concrete and the issues associated with it and similarly, I had very little knowledge of the legal issues within the project which had to be addressed. It required a much greater effort than I first anticipated explaining my research and technical findings on the case but I now realise I must take my audience and their backgrounds into consideration when trying to convey technical information and choose appropriate language to facilitate understanding and meaningful communication.”</i></p> <p>A paper was presented at a joint conference of the Institution of Civil Engineers (UK) and the American Society of Civil Engineers in London. A copy of the paper is attached.</p> <ul style="list-style-type: none"> • In 2023 ethics approval was obtained to conduct a study titled “Undergraduate Learning Experiences from Engaging in an Interfaculty Cross-Disciplinary Learning Activity – Engineers act as Expert Witness in Moot Court.” The outcome of the study is being written up for a journal publication. • Approval to extend this work in academic year 2024-25 has been sought so comparisons can be drawn between both cohorts.
<p>Any future plans, including the sustainability of the initiative?</p>	<p>The initiative will continue as long as the current staff remain involved. Succession planning will take place if the current staffs’ teaching commitments change.</p>
<p>Key Learning Points</p>	<ol style="list-style-type: none"> 1. Broadening of educational experience for students. 2. Development of professional skills in tandem with the subject knowledge. Students emerge with improved teamwork, collaboration, communication and management skills by partaking in the mooting activity. 3. Building on the second point, unifying the technical and professional skills eliminate the siloing of these activities e.g. communication skills are not taught independently of technical content but rather as an integral part of carefully considered open-ended learning activities. 4. Providing a practical context for learning results in greater motivation, curiosity and enthusiasm for learning.

Teaching and Learning Focus Areas (please tick all that apply)

Categories	Elements	Topics	Target Groups
Commit <input type="checkbox"/>	Leadership, Strategy & Governance <input type="checkbox"/>	Digital Transformation <input type="checkbox"/>	Students <input checked="" type="checkbox"/>
Coordinate <input type="checkbox"/>	Curriculum and Assessment <input type="checkbox"/>	Education for Sustainable Development <input type="checkbox"/>	Staff <input type="checkbox"/>
Consult <input type="checkbox"/>	Innovation in Teaching <input checked="" type="checkbox"/>	Academic Integrity <input type="checkbox"/>	Wider community <input type="checkbox"/>
Create <input type="checkbox"/>	Professional Development <input checked="" type="checkbox"/>	Inclusive and Equitable Teaching Practices <input type="checkbox"/>	Other <input type="checkbox"/>
Celebrate & Continue <input type="checkbox"/>	Research and Evaluation <input type="checkbox"/>	Innovations in Assessment and Feedback <input type="checkbox"/>	
		Student Engagement and Partnership <input checked="" type="checkbox"/>	
		Collaborative and Interdisciplinary Approaches <input checked="" type="checkbox"/>	
		Artificial Intelligence <input type="checkbox"/>	
		Other <input type="checkbox"/>	

Contact Details

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Links	Conference paper and images from the mooted activity attached.