2021

# Embracing Online Engagement with Undergraduate Supervisors: Collective Perspectives on the Online Pivot

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**Abstract**

The sudden national move to online/remote teaching and learning has presented a unique dual opportunity to explore the strategic value and importance of embracing learning technology to increase the proportion of the undergraduate (UG) supervision community actively developing their practice. We have delivered a redesigned module as part of an accredited professional development (PD) masters programme, which offers online practices and approaches sought by UG supervisors. This paper proposes an experiential and reflective contribution by educational developers in supporting the PD of UG supervisors. Our aim is to boost institutional informal conversations on UG supervision through formal engagement strategies in the online accredited PD module. We discuss pedagogical practices and challenges of the undergraduate supervision module, present the perspective of those involved in UG supervision on their online journey, and their views on developing their technology-enabled assessments and how these can give impetus to their own online supervision practice.

**Introduction**

In the 1990s European Higher Education was expanding, which resulted in new activities being added to the duties of academic staff. Academic roles at that juncture were broadly categorized as teaching, researching, managing, writing and networking (Blaxter et al., 2006). In that context, teaching was regarded as the facilitation of learning, not the mere transmission of knowledge; there was also the acknowledgement that teaching had since then diversified due to the massification of Higher Education (HE), and to the emergence of new pedagogies that were linked to educational technologies which have been embraced in the sector (Blaxter et al., 2006; Clarke et al., 2014). The need for the professionalization of teaching was made explicit (Hanbury et al., 2008; Kandlbinder & Peseta, 2009). From the 1990s Irish HEIs started providing Continuous Professional Development (CPD) courses and modules, which became formally accredited academic development opportunities, such as Diplomas and Certificates of University Teaching and Learning (McAvinia et al., 2015).

This paper describes how a CPD module - Supervision of Undergraduate Dissertations and Projects[1] - that had been delivered in a face-to-face (f2f) mode at our Institution for 5 years addressed the online pivot. Due to the COVID-19 crisis, the sudden transition to a remote/distance learning context meant that the module had to evolve to meet the participants' needs and still meet the Learning Outcomes (LOs). The paper focuses on presenting a collective of reflections from the tutors, participants and expert panellists of the final session of the module on the pedagogical and technological practices experienced. A set of recommendations are derived from those reflections and are based on the perceived usefulness of the multimedia artefacts participants created for their assessment and their potential impact on the practice of future UG supervisors.

**Background**

When Irish HE Institutions closed for in-person teaching and learning activities and made an emergency transition to remote, online and/or blended forms of teaching and learning, given the tight timeframe for the shift to remote delivery, there was a deep appreciation by all affected of the 'success of higher education institutions at finishing out the academic year under the COVID-19 restrictions, within the normal timescale and completing the groundwork for next year' (Quality and Qualifications Ireland (QQI), 2020, p.6).

It is important to note that while Virtual Learning Environments (VLEs) and educational technologies eased the transition from f2f to remote mode, especially if HEIs had up-to-date online technology tools (James, 2020; QQI, 2020), we should not equate emergency online/remote teaching to a well-planned online/remote equivalent programme (QQI, 2020). However, the prevailing view is that f2f classes did not suddenly become online courses, rather this was an atypical 'temporary, emergency shift' towards online education. The HE sector used technology tools to make the transition for students and staff as easy and painless as possible. Simultaneously, a QQI survey of staff and academic administrators revealed that while teaching staff adjusted their material during the transition, that fact in itself is not an indicator that the quality of teaching suffered during this period. In fact, previous studies have shown that quality teaching is driven by research into how students learn and can be delivered physically or virtually in equal measures (Skallerup-Bessette et al., 2020). A review of the impact of COVID-19 on HE teaching and learning suggests that where possible, in Irish HEIs, every effort was made to cover the modules' stated LOs and thus meet learners' needs (QQI, 2020).

Studies during these trying times (as well as anecdotal evidence) have shown that students and staff alike have worked diligently, under difficult conditions, and that they still value a sense

of community and belonging. While technology made it possible for staff and learners to connect with each other, it cannot replace the role of the teacher. Both still prefer f2f as opposed to virtual/remote teaching approaches adopted to address students' pedagogical needs during the pandemic because f2f teaching offers intimacy that cannot be substituted by technology; digital tools are mere complements to the immediacy of f2f learning (James, 2020; Kim 2020; TeachOnline.CA, 2020).

However, there is a clear distinction between being present and engaging with the learning process. Teaching staff need to further explore and find a balance between synchronous (e.g. Virtual Classroom, Teams, Zoom) and asynchronous (Canvas, Blackboard, D2L) teaching and learning, so that there is increased engagement with the content. Staff need to structure their classes in a way that encourages active learning to take place through well-constructed guidance on how to use the digital tools and clearly explaining the activities with which the students will engage. This weaving of synchronous and asynchronous teaching can yield genuine student participation and significant learning benefits (Kim, 2020; James 2020). Engagement is clearly an important ingredient of pandemic teaching, although an equally important ingredient is the content. The material delivered during a f2f session needs to be re-designed to address the technological requirements and any limitations and meet the needs of students (TeachOnline.CA, 2020). Such an approach has the potential to free-up classroom time for in-depth discussions and opportunities for discovery and innovation (Kim, 2020). There is also the opportunity to rethink assessment methods (TeachOnline.CA, 2020), by exploring new ways of examining students' understanding of a topic through assessment for learning approaches, having less reliance on summative, and explore more authentic formative assessment.

**Context**

This module is offered as both a CPD and as part of an accredited MSc Education for academic staff in Ireland's first Technological University. This module was the first of its kind at the time (2015) in the Irish HE sector. Since its inception, it has attracted participants from across HE, and it includes supervisors new to their role, from across the disciplines, as well as more experienced supervisors who wish to share and expand their knowledge in the UG research domain. That diversity leads to a sharing of different regulations and practices, roles, expectations and responsibilities of the UG supervisor. It provides participants a space to collectively acknowledge the challenges of UG supervision and the accompanying assessment process. The module supports them to reflect on their supervision practice for both pedagogic and professional development reasons, and encouraging critical dialogue about UG supervision.

The module was designed and validated in 2015, taking an expressly collaborative approach in its delivery and calling on practitioners to create multimedia resources which could support their work as supervisors. Healey et al. (2013) report the importance of recognizing that academics supervising students undertaking a FYPD[2] (Final Year Project and Dissertation) need support and advice for this role which is significantly different from other forms of teaching. Constructive alignment (Biggs, 2003) was the theoretical underpinning of the outcomes-based module, with coherence between assessment, teaching and learning strategies and the intended learning outcomes. It was important that activities were designed which enabled participants to learn how to demonstrate achievement at the highest level described by the outcomes.

**Module design for remote delivery**

The Institutional closure due to COVID-19 in mid-March 2020, forced academics to employ an emergency approach to remote teaching for the remainder of the second semester of 2019-20. During this time, the module tutors utilized the Emergency Remote Teaching Environment framework (Whittle et al., 2020) to determine the best way to deliver the UG Supervision module. This involved an initial 'Inquire' phase during which a number of resources were either searched for or created based on their potential for use in remote teaching. This exercise proved beneficial for the 'classify' phase because it crystalized the need to employ active learning as the 'constant' and use different methods of representation as the 'variable'. Thus, the educational experiences imagined in the 'design' phase would incorporate opportunities for critical thinking, reflection and inquiry-based learning.

In terms of the fully remote iteration of the module, the topics were closely linked to those explored in the f2f version of the module:

**Session 1:** Conceptions of Research; What is Good Research?; Why is an Undergraduate Research project important and how does it differ from Postgraduate?; What are new supervisors concerns?

**Session 2:** Supervisor's roles and responsibilities; Supervisors' strategies, styles and leadership; Undergraduates as researchers.

**Session 3:** Stages of supervision of an UG project; Priorities to consider about supervision (supervisor and supervisee perspectives); Project management.

**Session 4:** Research Ethics; Challenges of supervision; Setting expectations; Practical advice about writing, feedback, meetings, assessment; undergraduate research and the curriculum.

**Session 5 (New concept)**: Panel of Experts on UG Supervision and role-playing.

The assessment involved describing the design and development of an authentic multimedia artifact/resource that is meant to support participant's supervision practice and is accompanied by a reflective account of how they approached its design and development. The purpose is to enable UG students to have this additional support and guidance to help them navigate their dissertation/project journey as the resources deal with some of the common questions, concerns and practical issues undergraduate students encounter. The resource can also provide useful information for others supervising undergraduate dissertations, thereby facilitating a consistent school-based approach, and can ultimately be used by both students and other academic staff.

The areas of diversion between the original f2f and remote module modes were twofold. Firstly, instead of having a session dedicated as a workshop for the development of the multimedia-artefact (e.g, a mind map, an Infographic, a screencast with audio, a narrated PowerPoint, an Interactive Poster, blog or video), each of the initial four sessions included a 40-60 minute presentation of a multimedia mode, discussing its purpose and usefulness and sharing an array of practical examples on the module themes to which they best align, and the ways they can enhance supervisory practice. Figure 1 shows an artefact created by a module participant (infographic).



Figure 1: An infographic created on the supervisor-supervisee relationship

The final session involved a panel of experts from three disciplines and three HEIs, having an open discussion on supervision topics which were currently concerning the participants. This was followed by role playing activities that were carried out in pairs, in Breakout rooms during which each participant acted out a scenario, alternating between being the supervisor and a student (a student profile[3]- one of three profile types - was given to each participant).

The scenarios were presented to the participants in the following manner:

**Role Play Scenario**

WHEN: It is the 3rd month of the project

WHAT: The student has missed two meetings in a row and has not produced an annotated bibliography that was an expected Milestone. The project is of particular interest to the supervisor.

HOW: does the Supervisor deal with the situation?

Participants were given 10 minutes to role-play and 10 minutes for a debrief

The remote version of the module included both asynchronous and synchronous activities. The former were mostly aiming to get participants to engage with the material and the topics through watching a relevant video, reflecting on their practice (e.g. Padlet questions [http://www.padlet.com]) or doing an exercise related to their role and responsibilities (e.g. commenting on a piece of academic feedback). The latter aimed at creating a supervisors' learning community that was even more important this year.

Following the demonstration of the four media types, participants were asked (asynchronous activity) to reflect on how that knowledge might inform the development of their

artefact. In the subsequent synchronous class, participants were invited to share in an elevator pitch on the purpose and theme of their chosen artefact and its target audience.

We believe the format encouraged active participation in small group discussions through the VLE breakout rooms, because participants were engaging with the themes/topics in advance through the asynchronous activities. They also seemed comfortable engaging with the learning material (through questioning, polling etc.) and share their experiences, knowledge and views during whole group synchronous contexts. Participants were encouraged and availed of asking questions either through their microphone or by using the chatbox. The fact there were two of us delivering the module allowed one tutor to monitor the chatbox while the other delivered the session.

We now offer a comparative view of the f2f and remote UG supervision approaches to delivery. We present reflections from a discussion with a panel of experts with extensive experience of UG supervision. They describe adjustments they made in their transition to a remote setting, obstacles they faced, and how these were overcome. We also present participants' reflections from a role-playing activity and their module evaluation. It is worth noting that our Centre receives generic ethics approval for data collection related to course evaluations in our Institution. We also received consent from the Expert Panel.

**Impact of COVID-19 on UG supervision**

*Expert panel perspective*

Prior to the fifth session participants added their questions for the panellists into a Padlet discussion forum. Their answers were categorized broadly as either quick fire questions, deeper questions or

scenario. The three disciplinary areas represented on the expert panel were Psychology, Physics and Science within Hospitality Management.

The initial question posed to the panellists was to describe the biggest changes they encountered fin transition from f2f to online supervision. Issues with Lab-based work were highlighted. Experimental work for the second semester of 2019-20 was interrupted and projects for the first semester of 2020-21 were either cancelled or their content was altered, although having f2f labs is possible in some circumstances where COVID-19 mitigating measures are easy to implement.

Meetings with the students have also been disrupted in a significant way. The staff workload with the emergency transition to remote teaching and the fact they might be supervising up to 12 projects meant that in some cases that the meetings changed from individual to group settings.

Communication tools such as MS Teams are considered useful for weekly meetings. However, supervisors are missing the f2f contact with their students due to lack of visual communication and organisational structure. However, there are some supports for students even in an online context such as the SURE (Science Undergraduate Research Experience) Network, with its affiliated conference (which was held fully online in 2020) and journal to support UG research.

The panellists were then asked to offer some tips on communication with students in relation to the methods used, duration and frequency. The communication can either be individual or as a group/lab and can either be virtual or by email. A frequency of weekly meetings was the consensus, but this needs to be tailored to a student's circumstance in some cases. A suggestion for a group meeting is to allow every student to present with one slide, which keeps everyone up-

to-date with progress. It is also very important to communicate to the students from the beginning how prepared and engaged the supervisor expects from a student during meetings. Some have an open door policy while others prefer to adopt a weekly meeting policy which they believe gives a more personal touch.

Prompted by the last scenario-type question on how to deal with a student who does not engage with the supervisor until late in the year, the panellists were asked to identify any issues they have noted that may be unique to the COVID-19 era. They believe that clear timelines, deliverables and a good curriculum design would alleviate that issue; however they do believe that COVID-19 has exacerbated such issues.

They also raised the issues of fairness and transparency that should be at the forefront of academic decision-making when it comes to online/remote supervision, in terms of academic staff being consistent in relation with expectations, and ensuring communications are clear. The final point they made was about the effect this situation has had on the mental and physical health of staff and students alike. They highlighted the need for grading guidelines' clarity to reduce students' stress levels and try to arrest any increased drop-out rate during 2020. Moreover, they stressed that academics should be mindful of their own wellbeing by not over-extending themselves and not stressing when students seem disengaged.

*Participants' perspective*

*Insights from role-playing*

The fifth session of the module included role-playing activities, where every participant took turns to 'act out' a given scenario as the supervisor or student on a one-to-one basis. With regards to acting as the student, the participants took two different approaches, either being what they

consider the 'worst case' scenario of a student they have had to deal with, or taking an easier route for the sake of the supervisor in front of them.

As supervisors of UG projects, the participants have found remote supervision to formalize the process, however they are in agreement with the panellists that the process feels lengthier with each student. In their view, it is key to have student support measures in place for this 'new normal' context we are experiencing, in order to identify early potential problems that can lead to lack of engagement and put the completion of the project in jeopardy. However, it was noted that it may be difficult to balance pastoral care with supervision and other duties especially if the supervisor has no training in that area.

Students need to be given some structure that breaks down a potentially daunting activity into more manageable, smaller steps/phases. It is helpful having regular meetings with them to explore reasons for missing deadlines or milestones and to mention wider Institutional supports that they could avail of, such as going to the Academic Writing Centre if they are struggling to complete a chapter. In the case of having group/lab meetings, it was suggested it would be best to meet with a struggling student individually, before a group meeting, to provide a safe space for them to share their issues.

*Insights from module evaluation*

The module evaluation was in a google form and the link to it was given to participants after the last session. Most replies were received within a couple of days. The evaluation revealed interesting perspectives on how supervisors found the online supervision experience helpful in their practice. As a source of data provided anonymously by the participants, it addressed the topics of "Supervision Prior Experience & Expectations", "Supervision Challenges & Solutions" and

"Module Impact" on their practice. There were twelve participants taking the module and we received a response from nine. The data shows that seven had previous experience with online/remote supervision, but at the same time, six had enrolled to the module because they were experiencing challenges with online supervision. With regards to how does online differ to f2f supervision, participants responded ranging from "online is better because students are on time", to "f2f is better because they cannot gauge students' understanding and feelings by their body language and facial expressions when the camera is off" (due to wifi limitations or technical issues), and they tend to spend more time communicating with students (increased volume of student emails).

Useful strategies and ideas they identified for future online supervision include discussing the role of supervisor with a specific student, using an agenda in order to have focused meetings, having clear timelines, utilizing online peer groups, and integrating multimedia that can be useful for both online and f2f supervision.

Lastly, the participants were asked to identify online practices that they were planning on bring into their future supervision. Explaining how to brainstorm ideas using mind maps would help students shape their research proposal. With regards to meetings, the possibility of combining f2f and online meetings, to have a clear agenda and "then follow up by email the keys points discussed and agreed." Additionally, role-playing with other supervisors was regarded as a useful exercise to help identify shared challenges, build confidence and share good practice.

**Recommendations**

From the collective participant-tutor-expert panel experiences, a set of five recommendations are offered - for educational developers supporting UG supervisors, who in turn support their own students – in continuing to balance the opportunities that being fully online can provide.

**Design opportunities that empower participants' engagement**. Check in regularly that participants are with you and offer them chances to speak or type in chat (the Virtual Classroom has a useful 'Hands up' feature). It is good practice to be explicit in a running commentary and narrate what you are doing. Avoid making assumptions about digital skills and purposely think about how the design enables interaction and solicits participant viewpoints.

**Design with Inclusive Learning principles in mind.** Videoconferencing is likely to be a part of people's work environments, so by getting a sense of how students prefer to interact, supervisors can adjust their style to better meet their needs and preferences, e.g., offer but do not require webcam-on moments**.**

**Socialise the cohort into the online space and be explicit in identifying ways of interacting.** It is important to spend time in establishing a shared sense of group norms and values for how the cohort will interact in the online space. While this is about ensuring students know how to use different functions, it also about respectful communication in the online space. In our online module, we discussed netiquette for this purpose, and in the future can include it as part of an orientation activity with students where the group designs its own netiquette or shared ways of interacting online.

**Set an active tone but provide thinking space.** Reinforce supervisor expectation of participation by setting the tone early and introduce active learning from the start of the live webinar; by low-stakes activation of prior knowledge activities e.g. through asking for posts in the

chat, or poll participation. If making use of the chat, consider if you want to use this throughout the session, potentially introducing the role of a participant chat champion to moderate, or if you want to use the chat at specific points and signpost them. However, balance is needed in the online space; tutors can feel pressurised to have constant activity on the microphone or video. When designing a session, including prompts which purposefully provide space to think are helpful.

**Facilitation strategies: Weave, summarise, question**. Weaving is facilitation technique that works equally well f2f and online - bring together different contributions, provide feedback and highlight the connections between and overall contribution to the cohort's understanding. It translates well into the online space as a way to recognize contributions, potentially from the chat and video. Another key facilitation technique from f2f supervision is questioning, and probing students' initial contributions to encourage them to think more deeply. When asking questions do not fear silence, rather let students consider the question as you would in the f2f context.

**Conclusion**

The focus of this paper has been sharing a collective of experiences, practices, and challenges of online supervision in an undergraduate supervision module for professional development for supervisors working online post-COVID-19. The reflective narratives are from the supervisor and supervisor-as-student experiences with online supervision. Those from the supervisors on the module show how they have approached adapting their earlier practices and collaborating on research projects in the online environment. The strength in the online delivery of the module depended on socialising the participants into learning in the online space, thinking carefully about the design balance of each of the weekly live sessions with the asynchronous activities, as well as the effectiveness of the facilitation strategies. Spending sufficient time beforehand considering

how we as module tutors could translate the strengths we had in the f2f delivery of the module

into the virtual space was rewarding and energising, and resulted in a positive learning experience

for both the supervisions-as-participants and the educational developers-as-tutors.

**Footnotes**

1. A dissertation focuses on a research problem. It finds a research gap and addresses it through targeted research questions, by conducting a study and producing an output. The purpose of a project is to help solve an identifiable local real-world problem in a specific setting. The solution may be published in a journal.
2. Participants of this module come from the wide range of disciplines of the University. Some disciplines favour Projects, others Dissertations, and there are variations on how they are conducted.
3. **Student A**
   - The student is struggling with academic writing
   - The students has major problems with the wifi connection at home
   - The student is lonely
   - The student does not like the supervisor

**Disclosure statement**

No potential conflict of interest was reported by the authors.\

**Notes on contributors**

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Yurgos hold a PhD in Physics Education from University College Dublin. He was involved with international projects, namely, EUROAC, UNIBILITY, COMMIT, ERSALE and Inclusive Learning. He held a Marie Curie Fellowship, which entailed a 2-year visit at Michigan State University. He is a Learning Developer at Technological University Dublin where he co-ordinates the Undergraduate Supervision module.

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