



Enhancing the Supervision of Undergraduate Major Projects

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ABSTRACT

Most undergraduate students are still required to complete a project of some kind, often in their final year of study. However, levels of student satisfaction on project modules and student outcomes are subject to considerable variation. Project modules sometimes detract from rather than add value to the student experience. Published research in the sector focused on best practice in the supervision of undergraduate projects and dissertations is limited. Using a case study approach, this article considers recent academic staff development interventions focused on enhancing supervision practice from a series of workshops and webinars organised by the authors. The analysis draws from existing module evaluation data, an in-session e-voting tool and end of session written evaluations. It considers the nuances of undergraduate supervision, the challenges that stem from cultural differences between disciplines, and the kinds of challenges faced by students and their supervisors. It argues that supervision at UG level constitutes a separate and distinctive aspect of HE pedagogic practice and involves inducting the student into a different and often 'alien' approach to learning. It provides what the authors hope are some useful reflections on practice and proposes opportunities for developing practice of supervision more widely within the sector at undergraduate level.

Keywords: undergraduate major project, supervision, student experience, case study

Introduction

National Student Survey (NSS) data indicates that the student experience on undergraduate major projects is not always positive. Student satisfaction as expressed in module evaluation surveys and in NSS scores often lags behind those on other modules within their courses. Similarly, students' academic outcomes (marks) on their projects are often lower than the aggregate marks on other modules at undergraduate levels 5 and 6. In some courses, they are more likely to reduce than add value in terms of the final classification mark. Successful completion of the project/dissertation module is important as it is often double-weighted (i.e. it often carries twice the amount of credits as a standard module) which means that the negative impact of lower than average marks can have a disproportionate impact on final classification. However, the importance attached to the project by both students and their supervisors varies. This article presents a case study focusing on work undertaken by the authors at one UK university to enhance the practice of undergraduate supervisors and the subsequent quality of their supervision of student projects.

Background

The undergraduate major project is an extended piece of work, to integrate and develop further student knowledge and experience in a discipline area. It involves independently exploring a specific question in depth. Students are required to demonstrate research and project skills, critique their own and others' work and underpin their work with a range of relevant sources. It is an opportunity for students, through sustained enquiry, to make a contribution to their discipline area that may include developing research skills, analysing data and making judgements. Indeed, many courses also offer research skills and methods focused teaching content either during Level 5 or at the start of Level 6 in preparation for completing the undergraduate major project.

Whilst the authors found that some faculties in their institution have recently begun a process of reducing the number of major project modules, they continue to feature prominently as a final capstone module on undergraduate degree courses across all Faculties. Indeed, they are (arguably) one of the defining characteristics of the student experience at many UK universities, being the compulsory culmination of the degree and providing students the opportunity to amalgamate what they have learned, applying and using different kinds of skills including higher-order Higher Education (HE) skills such as communication, problem-solving, criticality, evaluation and reflection as well as linking theory to practice (Brew, 2006; Bell et al, 2009; Walkington, 2015).

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The authors were presented with the challenge of thinking about how best to develop the expertise and support undergraduate major project supervisors. Some key questions needed to be considered:

- What kind of approach would work best?
- What kind of outputs or takeaways should be prioritised?
- Should the intervention be face-to-face, or online?
- Should a blended approach be employed?
- To what extent should the focus be on developing colleagues' understanding of the purpose and benefits of projects for students' academic and professional development (and their preparedness for the world of work) or, by contrast, on developing the skills, strategies and attributes of an effective supervisor, including providing concrete supervision tools and tips that colleagues might subsequently apply in their own practice?
- And what qualities should a supervisor embody in their approach? Griffiths and Warren (2016) also considered the challenges of creating good supervision. Along with Light and Cox (2001) and Wisker (2012) they highlight the importance of building a reciprocal, dialogic relationship between supervisor and supervisee at the heart of the process, stating that "the presence of empathy in an academic supervision relationship builds such foundations" (2016: 173), that is "how it *feels* to stand in their shoes" (174).
- Finally, what role should different modes of communication play in building relationships – for example, the form, variety and quality of the dialogue, interaction and intervention in order that it is impactful learning and teaching (Wisker, 2012).

Eventually the authors' embraced an approach which addressed all of these, and included four different types of academic development: generic face-to-face workshops (open to and attended by staff from across the University), Faculty-specific workshops (tailored to the needs of specific Faculties), online webinars and informal *drop-in* sessions wherein academic supervisors could come along to seek advice and guidance of a general or very specific nature. The emphasis was on exploring both the principles of good supervisory practice, clarifying roles and responsibilities and developing colleagues' insights into the pedagogies most likely to encourage and support positive outcomes, whilst also providing a rich and diverse array of 'tools' that supervisors could use with their students to enhance the latter's experience of the project development process.

Context

The need for some dedicated staff development focused around the supervision of students undertaking undergraduate Major Project Modules was identified during early discussions between the authors, Deputy Deans and Directors of Learning, Teaching and Assessment in each of the Faculties. Academic staff who were often highly adept at delivering standard subject-focused undergraduate modules sometimes struggled to achieve either the high module evaluation (satisfaction) scores on their project modules, and student academic outcomes were often less positive than on other modules, with marks sometimes impacting negatively on Good Degree outcomes (i.e. the proportion of students achieving a 1st or 2(1) degree classification). This problem was common to all the faculties and partner colleges.

The authors set about developing a clearer insight into the use of the undergraduate project module across the University and discovered that project modules were, indeed, a very common feature of degree programmes, and often had a double weighting (i.e. they had a 30 or 45 credit load, rather than the normal 15 credits). The length of the project varied, but most took a written form and were between 8-12, 000 words in total. Some courses provided opportunities for alternative forms of submission, such as an extended literature review, a piece of software or an artefact or practical component with a commentary. There was also some variation in the form of the submission, with some courses requiring a proposal, research plan or draft chapter to be submitted first, or some of the assessment to be in the form of an oral presentation or a poster. Most work was marked by tutors but some courses involved student peer assessment or presentation to local employers. However, the main project accounted for the majority of the marks in all cases.

Discussions with senior academic managers about the appropriate approach and likely content of staff development interventions on this theme resulted in a set of requirements that the authors were able to draw upon to build a three-hour workshop, with associated pedagogic materials, that drew on best practice and research in the UK higher education sector (Crawford, 2009). Delivery of the workshops took place at the institution's core campuses, but also at the campuses of regional partners. The workshops also integrated technological tools such as Poll Everywhere, to capture ideas and feedback

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in each workshop, and to promote a pedagogical approach founded on active learning and engagement. The emphasis was on providing academic staff with evidence-based, concrete, tangible and practical ideas and tools that they could take away and utilise in their own supervision practice (Brew, 2003).

The audience for the staff development interventions included experienced academic staff who were actively involved in supervising undergraduate projects, project module leaders, staff recently appointed to the supervisor role by their departmental heads, new staff who had no prior experience of supervising students, and (mostly young) staff just setting out on their academic careers who were both new to working in higher education, and new to the role of the undergraduate supervisor. In reality, the workshops also attracted some Course Leaders, responsible for ensuring the effective delivery of all modules within their programmes.

Literature review

It was important to establish whether there was an existing body of literature on the topic of supervision of Under Graduate (UG) projects. A literature search revealed that, in fact, whilst there was a significant body of literature aimed at students on *How to write a project* or *How to write a dissertation*, and there was a well-established discourse around the particular challenges and tensions of supervising post graduate student theses (PhDs, MPhils, EdDs) one example being Wellington's (2010) doctoral student guide *Making Supervision Work for You*. However, there was, according to Greenbank et al (2008) surprisingly little research on the project or specifically material aimed at supervisors of undergraduate projects. Three exceptions worth noting were firstly *The Good Supervisor* (Wisker, 2012), which draws upon a research base to discuss and reflect on both undergraduate and postgraduate dissertation supervision processes, issues for supervisors, exchange of good supervisory practice and strategies for encouraging good writing; secondly a study by the Higher Education Academy (HEA) which focused on enhancing final year projects (Healey et al, 2014) and finally, two useful chapters from Griffiths and Warren (2016) on addressing, what they refer to as technical and adaptive challenges to ensure effective supervision and Marshall (2009) that maps out the key issues and explores opportunities for students to get broader support alongside that of supervisor as facilitator. Despite recent research in the sector on enhancing final year projects (Healey et al, 2013), universities have been slow to recognise that research supervision at undergraduate level involves a different, complex and dynamic relationship between supervisors and their supervisees in the supervision process, requires a different skillset and pedagogical approach on the part of academic staff, and involves inducting students into a new and often alien and unsettling approach to learning. Yet in 2004 Rowley and Slack indicated in their article *What is the future of undergraduate dissertations?* that a more proactive approach to supervision development was needed along with the changing nature of final year projects. In terms of institutional strategies to develop undergraduate research and enquiry, Healey and Jenkins (2009) propose that academic staff are provided with professional development to support them becoming more aware and engaged in undergraduate research. Griffiths and Warren (2016) identify key themes and elements of approaches to supervision in terms of expectations, roles, attitudes and styles of supervision. This builds upon research carried out by Gardiner (1989) that considered how the style of supervision related to deep and surface level learning. He identified three levels of interaction, the first being where the supervisor maintains control of the learning, the second being the active involvement of the student in their own learning, and the third being meta-learning where both supervisor and student dialogically reflect upon and use the learning process to develop higher order learning. Light et al (2009: 160) state that supervisors "will better serve themselves and their students by developing and sustaining a wider repertoire of responses to employ as the circumstances require".

Project supervision needs to be recognised as a respected and skilled teaching role unlike any other form of pedagogy. Supervision draws on a distinct form of pedagogy and academic practice referred to as a blend of teaching, learning and research in supporting students to develop as independent learners through research and enquiry (Wisker, 2012; Fung, 2017; Jenkins and Healey, 2005). Its uniqueness arises from supporting students through 'the key phases of the supervision landscape' (Griffiths and Warren, 2016: 176), in their first formal steps in research, to ask research questions and take an exploratory, critical, problem-solving approach to their work in the creation of new knowledge and insights. This approach, sometimes referred to as research-led teaching or research-based education, is the point of connection of research and teaching, although the alignment between teaching and research is not always recognised and one may be valued over the other, rather than fully integrated (Brew, 2006, Mayson and Schapper, 2012). However, the undergraduate major project is one of the experiences where universities can develop students as researchers and students can actively engage with research as a core part of their studies (Healey, 2005) that Walkington (2015: 2) calls a "students as researchers' pedagogy" that underlines the process of undergraduate research and inquiry-based learning.

Such an approach requires academics to recognise research across a range of contexts and experiences as an aspect of their teaching and an area of scholarship to which students can meaningfully contribute and share (Brew, 2006, 2010). Furthermore, academics can also consider how the major project output can be extended to become more outward-facing

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such as through submission of journal articles and reports (Healey et al, 2013). The project enables students to participate in inquiry-based learning and produce knowledge as well as being the receiver of knowledge (Neary and Winn, 2009). It allows the student to take responsibility for their learning experience, a pedagogy that Neary refers to as *Student as Producer* (2010) and subject based research and inquiry is one of Healey et al's (2014) four students as partners roles and Walkington (2015) breaks down into 5 levels of student participation in research, with 'live projects' falling into level 5 (student initiated, decisions shared with university staff). With regard to the undergraduate major project, the student as researcher is supported in the process by their supervisor using some features of collaboration on a real research project that can develop student curiosity and build engaged learning, with the potential to integrate students into the learning and research communities (Brew, 2006). In the context of the major project Griffiths and Warren (2016) refer to the supervisor as 'navigator' through the lifecycle of the project.

The interventions

The methodology adopted was essentially a purposive one, in the sense that the practicalities of engaging with key target constituencies of staff had a significant influence on both the form, timing and location of the approach adopted. It was recognised also that our methodology would need to be informed by a mixed methods approach in which both quantitative and qualitative evidence informed both the design of the interventions and the information collected from the staff participants. For example, workshops drew on detailed statistical analysis of module marks for project modules and other modules within degree programmes, so that the attainment gap between the two could be explicitly identified, but also drew on qualitative student comments on their perceptions of the role of the supervisor.

The window for implementing the staff development interventions was a narrow one. In an ideal world these would begin in September and extend to March, thereby providing timely support at all stages of the supervision process, right up to the project submission deadline in early May. However, in reality, the timing of the interventions was constrained by the fact that this was a new area of staff development, with a new team working together for the first time. Time was needed to understand the problem, to prioritise the nature of the intervention, and to organise dates/venues, and to liaise with Faculty Directors of Learning, Teaching and Assessment. Planning took up three vital months (September-November), that meant it was not possible to run the first workshop until December. The remainder of the interventions had to be 'squeezed' into the period from January-March of the next year. The nature of the interventions was designed specifically to provide the most useful kind of support for supervisors – i.e. that reflected the stages of the supervision process itself and the kinds of challenges that each stage posed for them. It was important to ensure that staff were offered a sound set of foundation blocks early on, but then subsequently had opportunities to seek more tailored advice and guidance as the nature of their work with their supervisees shifted.

The authors drew on existing research into academic development within the sector (Crawford, 2009), and developed a blended, multi-dimensional approach which brought together key components. Firstly they developed materials for a face-to-face 3 hour workshop. These workshops were run on multiple occasions and in different locations so as to maximise the opportunities for staff to engage. The second component was a series of drop-in advice and guidance sessions. These were run on four separate occasions and provided an informal opportunity for supervisors to discuss their concerns or to seek advice from the authors. The take-up was small, with only a handful of attendees at each, but those who came along really wanted to engage because they were grappling with a particular challenge and wanted to seek solutions or ideas that might help them overcome it. The final element of the intervention was a webinar, which took place roughly four weeks before the normal submission deadlines for most project modules. The timing was quite deliberate since the authors wanted to ensure that supervisors were supported to maximise their impact on students in the final, crucial few weeks leading up to the deadline. Experience indicated that this was often a period of frenetic and intense activity both for students and their supervisors, and that it was a period when supervisors were well-placed to provide not only much needed reassurance, but also to give crucial feedback and advice on some of the final *sections* of text, and to provide advice about structure, composition, presentational issues, proofing and submission.

Each workshop involved close collaborative working between the authors, including the inclusion of a highly choreographed role-play element where the authors acted out the role of supervisor and student in the context of a carefully designed set of scenarios. Practicing for these role play scenarios certainly revealed hitherto hidden talents for amateur dramatics, but much more importantly provided attendees with what proved to be a welcome element of humour, and triggers for further discussion. Many were quick to identify with the behaviours and challenges that the scenarios embodied. This helped to anchor the workshop in the realities of the supervision experiences of those colleagues in attendance, and generated further collective reflection on possible solutions and how certain behaviours, problems and challenges could be effectively

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managed. The role-play elements focused not just on problematic student behaviours, but also problematic staff behaviours which might undermine or diminish the constructive relationship between supervisor and supervisee.

It quickly became apparent that the workshop was throwing into sharp focus not only the practicalities of supervision, but the need for more consistent approaches within supervisory course teams, including establishing appropriate mutual expectations, clarifying roles, providing feedback and feed-forwards, managing and monitoring progress, and recording supervision sessions. A series of practical ideas and workable tools were shared with colleagues in order to equip them to change the way in which they worked as teams and to enhance the way they supported and supervised their students. Following each workshop, electronic copies of the PowerPoint slides employed were forwarded to attendees by email, along with a set of practical tools in Word format that they could adapt for their own use. Use of Poll Everywhere enabled the authors to capture feedback from attendees which revealed those practical ideas, tips, and tools the attendees felt they would definitely be using in future in their own practice. This demonstrated that the workshops had a highly practical outcome in terms of shifting thinking and providing academic colleagues with the tools they needed to enhance their practice and effectiveness as supervisors.

On reflection, the authors could have asked more experienced supervisors if they would be happy to serve as mentors to less experienced colleagues. This could have helped to build a more robust community of practice around the undergraduate supervision process, and is an action point for the future. Creating a community of practice must be a priority in order to ensure that best practice is most effectively shared in sustainable ways. The authors believe that whilst there is value in matching experienced and novice supervisors within Faculties, there is likely to be even more value in facilitating pairings between Faculties – a process which would help to address the entrenched silos that often develop and which unhelpfully constrain the experiences of academic staff.

The authors were of the view that the development of supervision could not and should not be addressed in a critical vacuum – i.e. it was felt to be important to place the concept of the undergraduate major project module into a meaningful academic context. One of the first questions that the authors posed to supervisors was therefore a philosophical one: 'What purpose does the project module serve in your degree programme?' This deceptively simple question prompted a surprisingly wide range of responses. For some colleagues, the project was primarily an opportunity for students to engage as active researchers and to develop their research-mindedness. For others its key purpose was to provide students with opportunities to demonstrate their critical and analytical skills, or to develop deeper insights into a topic. For others it was about empowering students to identify improvements to processes, protocols, service or practice in the professional workplace. One of the principal purposes was to enable students to synthesize their learning and to draw together and create linkages between disparate elements of the curriculum within a focused study. Some recognised that it enabled students to focus on what they found interesting – i.e. it facilitated an alignment between their passions (interests) and what they were able to study. The project therefore constituted a good example of negotiated learning.

Some supervisors emphasised the importance of the project as a vehicle for developing students' autonomy and building their independent learning skills, whilst others flagged the role of the project (in cases where students were engaged in primary data collection from human participants) as a means by which students developed their social capital (networks) prior to transitioning into graduate roles, or showcased their work. For some, the project created an opportunity for students to stand out in job interviews, or a springboard from which to launch their professional career. Interestingly, one colleague felt that it validated the degree course and the teaching in it – although presumably only in cases where the students did well.

It is therefore quite clear that even in a relatively small sample of less than a hundred supervisors, there exist diverse and contrasting perspectives on the function of the project within degree programmes. The conclusion one must draw from the feedback from staff is that the major project (and the module it sits within) serves not one purpose, but many different and often complementary purposes, from developing autonomy to facilitating a successful progression into a graduate role or profession. What also became clear from the authors' discussions with supervisors is that perceptions of the purpose of projects often varied greatly even within a single supervisory team on one module. No clear differences were discernible between different disciplines.

The timing of the webinar proved to be particularly useful in relation to supporting supervisors to help their students refine three particularly important elements of their projects - the introduction, the concluding section, and the section (where appropriate) on recommendations. Experience suggests that these are often left until last by students, and frequently fail to receive the careful attention they deserve. The webinar explored how supervisors could help students to conceptualise the purpose and focus of these three sections of the project. The webinar also provided the authors with an opportunity to explore with supervisors how they could 'target' their support and maximise their impact on the drafting of the final product.

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Twelve supervisor colleagues engaged with the webinar and completed a Poll Everywhere poll at the end wherein they identified the key ideas, tools, or tips they would take away and apply with their supervisees. Although attendance at webinars and drop-ins was small, the colleagues who attended gained a great deal from working with the workshop leaders in such an intimate context. Feedback from them was overwhelmingly positive. A comparison of the different benefits of the workshops, drop-ins and webinars can be found in Table 1.

Table 1 Different benefits of workshops, drop-ins and webinars.

Interventions	Advantages	Disadvantages
Generic workshops (cross-disciplinary attendees)	<p>Inter-disciplinary by nature</p> <p>Breaks down barriers between Faculties – sharing of practice across a wider range of disciplines.</p> <p>Opportunities to learn from other disciplines with different approaches/traditions.</p> <p>Reassurance regarding the commonalities of practice.</p> <p>Recognition that there are tools and strategies that are readily transferable between disciplines.</p> <p>Issues and challenges are not just related to a single department or Faculty – they are often shared across the entire institution.</p> <p>Enhanced awareness of different outputs can exist – e.g. artefacts, performances, objects accompanied by a critical narrative etc.</p> <p>Builds a more inclusive and all-embracing community of practice around this aspect of pedagogy.</p>	<p>There are some specific issues or aspects of practice that are not relevant to all attendees (e.g. artefacts or performances as outputs).</p> <p>Fails to focus on addressing Continuing Professional Development (CPD) of specific departmental or course teams.</p> <p>Some courses/departments can dominate the training sessions – e.g. 4 colleagues from one department in a group of 10 attendees. Requires careful management by workshops leaders.</p> <p>Some courses or departments have no representation at the workshops at all.</p> <p>Assumptions about exclusion – i.e. that because colleagues from other disciplines are present, that the workshop will not be of value to them personally.</p> <p>Timing of the workshops will not suit everyone – e.g. courses which run on a trimester basis will have different deadlines and patterns of study to semester-based courses.</p>
Faculty-specific workshops (attendees from only one Faculty)	<p>Promotes positive perceptions of the responsiveness of the service.</p> <p>Needs effective co-working with senior managers, role holders in the Faculty.</p> <p>Potential to achieve a strong alignment between workshop delivery and perceived needs of the Faculty in question.</p> <p>Similar reference points and traditions of research.</p> <p>Shared cultures around the supervision process.</p> <p>Shared understandings of the purpose of projects and dissertations.</p> <p>Higher likelihood of strong attendance if tailored to identified needs.</p> <p>Enhanced relevance.</p> <p>Specific Faculty issues and priorities can be targeted and addressed.</p>	<p>Fails to develop cross-disciplinary communities of practice</p> <p>Fails to facilitate cross-fertilisation of ideas between Faculties.</p> <p>Undermines opportunities for academics to challenge their own ways of working and their disciplinary traditions. Promotes <i>silos</i> thinking.</p> <p>It requires running more workshops.</p> <p>Can limit likelihood of attracting satisfactory attendance and engagement.</p> <p>Requires strong buy-in from senior role holders, managers etc who are critical in promoting engagement.</p>
Drop-Ins	<p>Can be scheduled at relatively short notice.</p> <p>Can be tailored 'on the hoof' to the needs of the small number of attendees.</p> <p>Only one facilitator needs to be present.</p> <p>Colleagues can seek and acquire answers to specific questions.</p>	<p>From a facilitator's perspective, it is difficult to be prepared for the wide range of queries brought to the session by colleagues.</p> <p>They can be labour intensive in relation to the small numbers attending.</p> <p>High effort, but low impact.</p>

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	<p>Can fit around unusual working patterns and schedules.</p> <p>No large room is required – easier to identify and book suitable venues.</p> <p>Perceived value to attendees can be greater than a workshop because their priorities and concerns have been addressed.</p>	<p>Can result in repetition of same issues during a 2hr drop-in.</p> <p>Attendees may not arrive with specific queries or questions.</p> <p>Staff can sometimes mis-interpret the function of the drop-in – purpose needs to be clarified in advance.</p>
Webinars	<p>Colleagues can access the CPD in a location remote from the University (e.g. home).</p> <p>Can be recorded.</p> <p>Can be provided in accessible format online (via an archive, website or VLE) so participants can return to the discussion.</p> <p>Colleagues who are unable to attend/participate, can also access the record of the webinar.</p> <p>The inclusive nature of the format – easier to facilitate engagement by staff colleagues in regional or international partners.</p> <p>Colleagues lacking experience in practice are less 'exposed' than they would be in a face-to-face session.</p> <p>Asynchronous delivery in future would enable colleagues to engage at a time that suited them (thereby avoiding diary clashes with other commitments)</p>	<p>Colleagues sometimes inexperienced in engaging in webinars.</p> <p>Lack of face to face contact between the attendees/participants can undermine the dynamic of the session.</p> <p>The variation in engagement from participants – some are passive, some a strongly engaged or even dominate sessions/discussions.</p> <p>IT, and technical glitches are not uncommon, and need to be resolved by the participant or the facilitator quickly in real time.</p> <p>Specialised IT support may sometimes be essential to address any IT glitches.</p> <p>Strong facilitator-led approach can result in reduced engagement by participants.</p>

Lessons learned

One of the key lessons learned related to staff engagement. Whilst attendance at some workshops was strong, this was not the case in others. Factors which appear to have encouraged staff engagement were:

- Support by senior managers and line managers – clearly articulated expectations around attendance helped to establish a culture of positive engagement.
- Locational proximity – basing workshops close to the work environment of the staff concerned minimised inconvenience and impact on staff time.
- Delivery format – offering interventions and support in both face-to-face and online formats maximised opportunities for busy academic colleagues to engage in the format that best suited them.
- Timing – focusing specific support at 'crunch points' during the academic cycle (for example the final weeks leading up key institutional dissertation submission deadlines) helped supervisors to identify priorities in their supervision sessions.
- Online accessibility of training and guidance materials – not all supervisors were able to engage with either face-to-face workshops, drop-ins or online webinars, so providing a comprehensive suite of materials in an easily located online repository (e.g. a website) was crucial.

The final bullet point serves as a reminder that in any university or college of higher education, a key target audience of CPD interventions of this kind is those staff who do not or cannot actually engage proactively with them. Those unable to engage at the time of the intervention need to be able to do so on their own terms and in their own way.

At the end of the workshop, supervisors were asked, using a Poll Everywhere poll, to identify the key insights or tools they would take away and apply in their own work with their supervisees. Colleagues identified a wide range of ideas or pedagogical strategies that they could import immediately or in the longer term into their own practice. These included the idea of having a whole group briefing session at the start of the module where expectations, timeframes, deadlines, roles,

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assessment, and a host of other key themes could be explored collectively, thereby also ensuring the key messages were conveyed consistently to all students at the same time (e.g. number, duration, and function of tutorials/supervisions, number of drafts which would be read and commented on by supervisors).

It transpired that some modules had a dedicated handbook, whilst some did not. Examples of handbooks were shared with attendees. Those lacking a handbook instantly recognised the value of having one and committed themselves to exploring how one could be developed by their module team(s). One of the ideas proposed by the authors, drawing on previous research on the efficacy of group-based dissertation supervision (Akister, Williams & and Maynard, 2009), was having a small-group supervision first (i.e. with 4-5 students) prior to breaking down into one-to-one sessions in subsequent weeks – as a way of again ensuring communication of consistent messages and managing expectations. This idea found a warm reception amongst supervisors who realised that, in reality, it wasn't always necessary to meet students individually, especially in the early stages of a project module.

The PollEverywhere feedback identified a number of changes that attendees would make in future in their own practices:

- Clarifying supervision expectations - both supervisor and supervisee complete a fill out a short questionnaire to start discussion on responsibilities
- Using audits and surveys to gain insights into a cohort's confidence and ability
- Arranging student support groups
- Idea of doing the initial meeting as a group
- Focusing on feed-forward rather than feed-back
- Jointly negotiating a learning contract
- Publishing a profile of supervisors and their areas of experience
- Sensitising learners to their responsibilities
- Using role play to clarify and demonstrate expectations
- Employing checklists and supervision exemplar for use with students
- Making the link with the students about the skills they are developing and how this relates to the industry demand
- Using a version of the Gibbs, Habeshaw and Habeshaw's (1992) One-year Process Model to explain to students what should happen and when, and the kinds of activities they would engage with at different stages in the research process.
- Using a questionnaire in first supervision to gain insights into skills development and possible needs for additional support.

A key issue discussed within the workshop was how to provide feedback. It quickly became evident that many supervisors dedicated a large amount of time and energy to providing lengthy diagnostic feedback once the project had been submitted for marking. It also became evident that the value of this was questionable since it came too late to influence the quality of the project and at a time when students had already moved on mentally and in many cases physically, and were in no position to act on the feedback. It was often redundant anyway since the project was the last assessment of their degree course. As feed-forward it was largely irrelevant and non-productive.

Discussion with supervisors revealed some interesting cultural issues. One of the most pronounced was the tendency for supervisors to work independently, rather than cooperating and working collegially as a supervisory team. The authors emphasised that working as a team on a project module was at least as important as on team-taught modules within the curriculum, particularly in ensuring not only more consistent approaches to the supervision process and managing expectations.

Colleagues identified a range of tools they would take away and utilise in their own supervisions. Some attendees identified that they would be using the exemplar Supervision Log that was provided in the workshop, whilst others were excited by the idea of using the *Managing Roles and Expectations* tool that the author's adapted from the 2014 HEA report (Healey et al,

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2014). Others identified the development of clear ground rules as a key priority and were keen to negotiate a learning contract or agreement with their students. Others felt happy to simply use the exemplar contract provided by the authors. The concept of a skills audit – drawing on an example designed by the authors – was favoured by several as a useful means of getting an immediate insight into the position their students were in – in terms of their skills development – at the start of the course. Others were unfamiliar with the concept of the Gantt Chart and wanted to use this in future. The authors have used these with their own students and both tools help to focus students’ minds on the right things at the right time.

One of the initiatives the authors encouraged supervisors to consider was the idea of a published profile of the supervisory team, i.e. 150-200 words describing the interests, research and publications of supervisors, and why they enjoyed supervising undergraduate students. This was identified as a take-away tool by several attendees. Attendees were almost unanimous in liking the fact that the authors built a role-play session into the workshop. Negative student behaviours and negative supervisor behaviours were unpacked and explored collectively so colleagues could see how they might manage their students more effectively whilst also understanding better how they can build trust and mutual respect. Several said that they wanted to replicate aspects of this with their colleagues and students as a way not only of engaging them, but also modelling how real tutorials and supervisions would work. Several were also keen to utilise the 20-point checklist provided by the authors which highlighted the key reasons or areas where students tended to lose marks on their dissertations and projects. By avoiding these common mistakes or flaws, students could ensure that they avoided losing marks unnecessarily.

A lesson that emerged was that of how to diversify the engagement of others in the supervisory process. It became evident, for example, that some supervisions could be more effective if they involved not just the student and supervisor but also subject specialist librarians, learning technology specialists, or writing specialists (e.g. literary fellows). What one might call ‘team supervisions’ are likely to add considerable value to the student experience and enhance the effectiveness of these sessions, whether they take place face-to-face or in an online environment.

At the end of each workshop, attendees also completed a formal evaluation form, which records how satisfied they were with key aspects of the workshop. Average satisfaction scores were extremely high, normally in the 4.5+ range (out of a maximum score of 5.0), and qualitative feedback was very positive. Some examples are provided below:

- “This is something that needs to continue – to ensure student/supervisor engagement”
- “The workshop showed me how to conduct supervisions with undergraduate students”
- “XXXX and XXXX were good on the role play session”
- “The role play offered a nice change of pace”
- “Lots of useful exemplars for supervisors and students”
- “The role play made it more interactive”
- “Lots of resources to adapt and re-use”
- “Good examples were used and introduction of new forms and procedures discussed”
- “An excellent mix, and very engaging”
- “Everything was very helpful. Thank you for coming and sharing with us”

Most frequent words or phrases used to describe the workshops were:

Professional	Instructive	Best practice ideas	Stimulating	Rewarding
Fun	Constructive	Innovative	Participative	Inspirational

In addition, attendees were able to identify a small number of enhancements – such as providing more examples of completed supervision logs – that would help to add value to the workshop in future. The authors have drawn on these constructive suggestions to refine the workshop for future delivery, and to inform a follow-on workshop focusing on the supervision of post-graduate students undertaking dissertations on MA/MSc taught courses. As at undergraduate level, Post Graduate Taught Experience Survey (PTES) survey results indicate that levels of student satisfaction on their dissertation

modules are lower than on other modules and marks on Master's level dissertations are often lower than the marks for other Master's modules. Both issues suggest that there is a need for dedicated staff development at Master's level.

Recommendations for supervisors

1. **Develop and provide clear guidance to students.** Examples of good practice in the composition of undergraduate major project handbooks exist and these need to be disseminated to ensure enhanced quality and consistency of information for supervisees. The guidance should include clear information on the benefits of doing a project, not only for enhancing learning, but for building transferable higher-order HE skills that students will need as professionals in the 21st century workplace, and as lifelong learners.
2. **Begin the supervision process as early as possible with students.** Ideally the first supervision might be timed to coincide with the final stages of the 2nd year (level 5), so that allocation of supervisors/supervisees is already confirmed before students go on summer vacation. Identifying a set of key actions then would help students to 'hit the ground running' at the start of their final year.
3. **Research methods training needs to precede the students' project work.** To do otherwise does not make pedagogical sense. Ideally students need to be introduced to elements of research methods training in their 1st year, reinforced with a more extensive and intensive training in the 2nd year prior to actually starting their projects in the final year. Where constraints require research methods to be taught in the final year, this should always precede the point where students embark on their projects.
4. **Convene a collective, communal class briefing session at the outset of an undergraduate major project.** This ensures that consistent messages and expectations can be conveyed to all students, and ensures an opportunity to clarify roles and responsibilities. All supervisors should (ideally) also attend this kind of briefing session.
5. **Be consistent in your practice as supervisors.** Students quickly identify inconsistencies in practice and unfair treatment between students. Supervisory teams must work as teams, meeting frequently to discuss issues and to share practice, to agree/confirm expectations, and (most importantly) to ensure consistent practices (e.g. regarding number of supervisions, the number of sections/chapters which will be read and commented on etc.).
6. **Establish clear and consistent ground rules.** The nature of the supervisory relationship, and the professional boundaries that constrain it and define it need to be spelled-out for staff and students on undergraduate major projects. Use, for example, of a consistent 'Checklist' by supervisors at the first supervision session helps to establish clear expectations and ground rules. Adopt some kind of learning contract or set of written rules that set out the mutual obligations and expectations of each party. This promotes transparency and accountability.
7. **Provide guidance on the deadlines, timeframes and major milestones.** Students and staff need to have a shared understanding of these.
8. **Provide dissemination opportunities and publication outlets for students' project work.** Many such outlets have already been established by UK higher education providers. Either facilitate students' submission to these existing outlets for UG work, or establish both informal and formal opportunities for dissemination in your own institution and beyond (Walkington, 2015).
9. **Explore the value of student peer-to-peer, collaborative and cooperative approaches to leaning and feedback on the project as a mechanism for reducing supervisor workloads whilst adding value to student learning.** Students have much to benefit from sharing drafts of their work and sharing ideas and problems/challenges with each other. Build into major project module opportunities for students to offer feedback on each other's project work.
10. **Explore approaches to supervision.** Consider group supervision as an alternative to one-to-one supervision. Online distance supervision and feedback using video conferencing, skype or zoom may also be more convenient, although physical presence may be preferred to a remote environment.

While these aspects are certainly important for undergraduate project supervision, there are also elements of them that are essentially good practice in terms of teaching and learning and can be compared to Ramsden's (2003) well known list of good teaching. These would include making the material interesting and pitched at the right level, communicating and explaining things clearly, making it clear what needs to be learnt and why and providing high quality feedback on student work.

Conclusion

As we have noted, supervision of undergraduate major projects is a specific kind of pedagogy that requires a different skillset and relationship between the tutor and the student. One cannot assume that all academics will have the skillset or attitude required for the role without some training (Brew, 2003). In addition to requiring different skills and developing a particular kind of professional relationship, the supervisory role requires an academic to induct their supervisees into a new kind of pedagogy and a new approach to, and environment for learning (Light et al, 2009).

Many staff will require support to develop the skills and attributes required to be effective in the supervisory role. If this support is not already in place or available via the Academic Development Unit in the university or college, senior managers should seek to address this through the implementation of dedicated CPD that addresses this aspect of practice within the HE sector (Crawford, 2009). Furthermore, the undergraduate major project contributes to the development of a research-led, research-based 'students as researchers' approach to teaching and learning (Walkington, 2015). Therefore, it is vital going forward to build a clear alignment between the undergraduate major project and a university's Learning and Teaching and Research Strategies. It is also important, we would argue, that supervision teams and individual supervisors consider the potential value of working more closely with other 'experts' in Library, learning technology, and learning support roles (e.g. learning development specialists) to build added value into the supervision process, so that the latter becomes a team endeavour, rather than one totally reliant on the practices of individual supervisors.

Biographies

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