

# Peer Reviews for Academic Skills: Supporting Engineering Students on their Writing Journey

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*Peer reviews are an effective pedagogic approach for enhancing writing skills in higher education. Their benefits include improved engagement with feedback, increased use of higher-level cognitive skills, and enhanced engagement with independent learning. This study outlines an intervention aimed at introducing peer review sessions within an Engineering Foundation Year cohort. The rationale for introducing peer reviews into an academic skills module on this programme included the benefits outlined above as well as improving students' reflective skills, fostering collegiality, and improving attendance at workshop sessions. Prior to peer review being introduced, a pre-intervention evaluation was carried out. This identified specific issues within the module which the secondary literature suggested could be mitigated by peer review techniques. A bespoke peer review model for the module was developed by the University's Enhancement Team (academic skills staff). Module teaching staff (including PGRs) were then trained in appropriate peer review concepts and practices. Formative training for students focused on key elements of peer review, including clear written communication, referencing conventions, and structural issues. The research and writing assignment within the Routes to Success module incorporated the peer review sessions as an integral part of its design, and the quality of the reviews was assessed as part of students' overall performance grade. This study aims to investigate the impact of the intervention on students' writing abilities as well as their engagement with feedback and attendance, contributing to the broader discourse on effective strategies for addressing academic skill deficiencies in higher education.*

## Introduction

Students entering higher education often lack – or perceive themselves as lacking – the academic skills they need to thrive at university. This may include (but is not limited to) skills such as critical thinking, academic reading, research, note taking, criticality and evidence-based writing using an appropriate academic tone. Whilst this is a universal problem, students from widening participation backgrounds may be particularly disadvantaged (Klinger and Murray, 2012; Krutkowski, 2017). These students are also less likely than their peers to refer themselves

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to existing academic skills support services (Goldingay *et al.*, 2014) – which in any event are often generic in nature and may not offer the discipline-specific knowledge that is really needed, with students then unable to transfer skills from one context to another (Gunn *et al.*, 2011; Wingate and Tribble, 2012). This means that students entering higher education at foundation level, a group which normally includes significant numbers from widening participation backgrounds, will benefit most from skills support that is discipline-specific, embedded in normal timetabled teaching and does not involve a remedial or deficit approach (McWilliams and Allan, 2014; Dougherty, 2022).

Peer review is an efficient and highly effective pedagogic mode for teaching writing in a higher education context (Nicol *et al.*, 2014; Huisman *et al.*, 2018; Lu and Law, 2012; Lundstrom and Baker, 2009; Patchan *et al.*, 2018). It is an established way of embedding academic skills training in normal, module-level teaching and produces multiple positive outcomes for students, including improved engagement with formal feedback, the use of high-level cognitive skills, and increased levels of independent learning, as well as enhanced writing and editing skills (Carless and Boud, 2018; Yalch *et al.*, 2019; Vickerman, 2009). Further, it is to be hoped that students who have successfully completed training in how to review peers' writing will have greater confidence in their own writing abilities going forward, as well as greater openness towards giving and receiving useful and constructive feedback (Reddy *et al.*, 2020). This can also transfer into life beyond university, where feeding back to peers and colleagues is an essential workplace attribute (Boud and Falchikov, 2006). Peer review also helps to boost students' confidence as well as their writing proficiency. (Flowers *et al.*, 1986). Therefore, it is the ideal method to use for foundation year students. Research suggests that foundation level students, again particularly those from less-traditional higher education entry groups, face challenges related to confidence and self-assurance in academic settings (O'Sullivan *et al.*, 2019).

Best practice suggests that the reviews should ideally be structured via a rubric designed by the educator. This will vary based on the specific writing task the students are being asked to complete, as well as the key attributes and competencies of writing within the specific academic discipline. However, rubrics will generally include content, structure, and style, and provide 'analysis, evaluation, explanation and revision' (van den Berg *et al.*, 2006). These can be aligned with module assessment outcomes or can cover wider aspects of genre and technique, as desired. Further, research has shown that learning to write within one's own subject discipline – rather than receiving generic, remedial writing support – produces better attainment outcomes for students (Lea and Street, 1998; Wingate, 2006; Wingate and Tribble, 2012).

The central activity of deconstructing others' writing and providing detailed analyses of the strengths and weaknesses therein develop students' appreciation of disciplinary textual conventions. Reviewing peers' work also exposes them to the process of providing relevant, meaningful feedback. The quality of the feedback is important not only on a practical level (i.e., so the student receiving the feedback can make appropriate changes to their work) but also so that students perceive the feedback as being meaningful (Huisman *et al.*, 2018). Following a peer review session, students should also be encouraged to reflect on the feedback they themselves have received (Hoo *et al.*, 2022). This reflection should include whether they consider that feedback to be accurate and what (if any) changes they will make to their writing going forward as a result. This stage of the process can also include strategic goal setting and the identification of tactical steps they can take to reach those goals. This ensures students maintain a degree of agency within the process, being active cocreators of the learning outcomes they themselves take from the sessions.

## Intervention

The study took place over the 2022-23 academic year across the Engineering Foundation Year programme at the University of Southampton. The academic components of the course consist of several year-long modules including Maths, Electricity and Electronics, Mechanical Science and Engineering Principles. These form the core subject material and are assessed via exams at the end of each module. The peer review sessions were delivered as part of the Routes to Success module. This sits outside the purely academic elements of the programme and is designed to deliver the core skills that students will need both for the Foundation Year and to progress successfully onto full degree programmes in the discipline. We find that students who have completed the Foundation Year at Southampton typically cope better with the demands of the first year of the degree than their peers who have arrived at the university straight from post-16 education – and this is in part due to this module. Routes to Success is split into three parts, delivered in seven-week blocks throughout the academic year as shown in Table 1 below.

Routes to Success Component	Description	Assignment Weighting
Part A Engineering Analysis	Introduces structured problem-solving, data-presentation and analysis skills.	Data Analysis (30%)
Part B Research and Writing	Focuses on referencing, writing, and students' ability to reflect on experiences and feedback.	<b>Peer Reviews (3%)</b> and Written Technical Introduction (27%)
Part C Group Project	Provides students with further opportunities to develop their academic writing and also demonstrate organizational, problem-solving, and time-management skills.	Group Paper & Poster (30%) Conference Attendance & Presentation (5%) Peer Assessment (5%)

Table 1: Overview of the Routes to Success Module detailing each 7-week block component and their related assignment.

It was decided to introduce peer review sessions onto the module as part of the Research and Writing component. This was done to support students' acquisition of university-level writing skills as well as embedding certain discipline-specific conventions (including correct citation practice, a suitable academic tone, and clear, well-structured scientific prose) into their work. However, there were also several 'sub-targets' we wished to achieve: namely, encouraging students to actively engage with tutor feedback (rather than focus solely on grades or marks), building a sense of collegiality and connection amongst the cohort and – importantly – increasing the levels of attendance at the workshop sessions where the peer review practice would be run. The year before, attendance at these sessions had been very low, with roughly 30-40% of students attending, including some workshops seeing no students turn up for class.

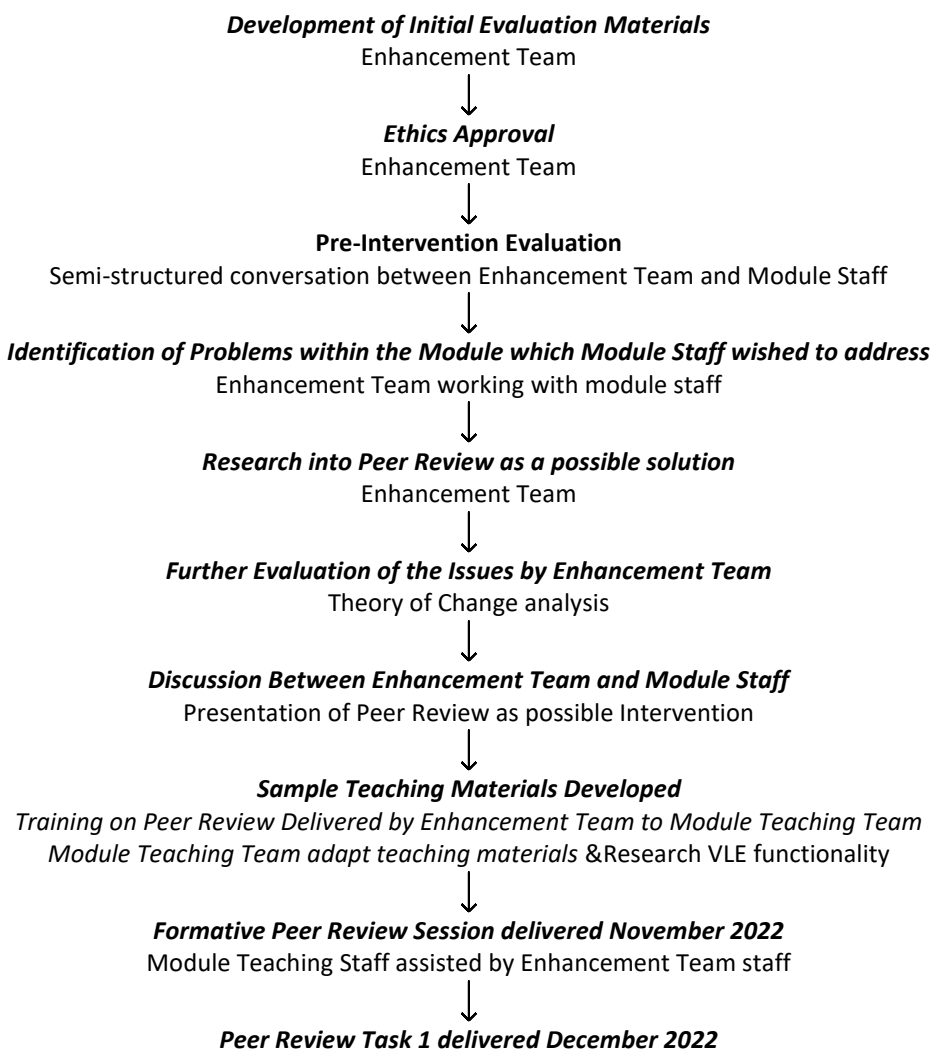
These goals and concerns formed a central part of the pre-intervention evaluation that was carried out by staff from the university's Enhancement Team. As well as a detailed conversation with the module lead, they conducted a robust analysis of the existing problems on the module using a Theory of Change model. This provided clarity on the issues we wished to address, as well as identifying what we wanted success to look like and what the active ingredients of the intervention should be. We also devised quantitative and qualitative evaluations to measure the effects of the intervention, including a further conversation with the module lead once the assessments had been completed, and a post-module student question-

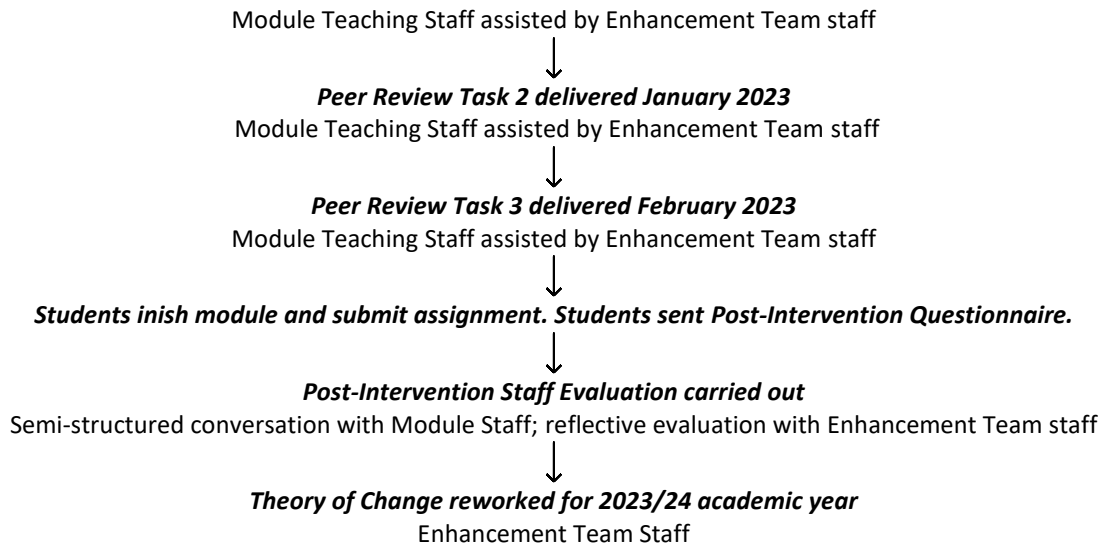
naire. This gave us clear targets and enabled us to feel confident that we were addressing the core issues on the module.

Practitioners from the Enhancement Team also conducted a survey of the existing scholarly literature on peer review, including studies which described the ways in which peer review had been implemented by other institutions across the globe (for example, Macnaught *et al.*, 2022; Reddy *et al.*, 2020; Serrano-Aguilera *et al.*, 2021; University of Strathclyde, 2007; Washington University in St Louis, 2023). This ensured that, as well as having a sound understanding of the theory that lay behind the practice, we were also aware of the practicalities of delivering the sessions and how others had tackled the task before us. Despite this, we knew there would be a certain amount of trial and error in the process, as each cohort of students is unique. Therefore, we also gave ourselves permission to view this as an experiment and allowed ourselves the flexibility to adapt our approach as and when necessary.

Finally, all relevant aspects of the project were submitted to the university's ethics committee at an early stage. This included the approval of all student questionnaires and the questions to be used for the staff interviews (with appropriate consents), strict rules on the anonymity of participants and a rigorous approach to documenting and recording data, evidence, and the decision-making processes.

### ***Timeline of Planning and Delivery***





### **Staff Training**

Although peer review is an established method for teaching academic writing, it was a new technique at Southampton. This meant that members of the Enhancement Team (who did the initial research into peer review and identified it as a possible solution for problems on the Routes to Success module) needed to introduce module staff to the process. Once peer review had been decided upon as a suitable intervention, the next step was the development by the Enhancement Team of a suite of initial teaching resources and the delivery of a training session. Following this, a plan for delivering the peer review sessions for the students was formulated – with module staff taking the lead – and, working together, module staff and members of the Enhancement Team (including the authors) produced the rubric to be used in the formative student training session.

### **Formative Student Training**

We knew that before students could review their peers' written work – or attempt to write a piece of text that could be reviewed – they needed to understand why we were asking them to do this and how it would benefit them. Additionally, we had to be careful not to overburden the students with too much information in one go or require them to engage in overly complex textual deconstructions too early in their academic careers. Accordingly, we settled on several basic but essential elements which we knew students from previous cohorts had struggled with. These included being able to communicate in clear, readable English, use appropriate disciplinary referencing conventions, and assess the structure of a given piece of work. Keeping things at a manageable level for the students was a key aspect of constructing the peer review tasks: we wanted them to feed back only on aspects of their peers' writing which they were competent to comment upon – they could not be expected to assume expertise beyond their current level. Likewise, we wanted to make it clear that their reviews were not a substitute for the detailed, specialist feedback they would be receiving from their tutors. Because student confidence is a key element of successful peer review, it was important to make these points to the students during their training and re-emphasise it in each session.

The formative training was conducted in person and used paper feedback forms, rather than the electronic peer review format described below. During the session we encouraged students to work together and discuss the process with their peers. This helped us introduce the

idea of peer review to the students as being a collaborative, supportive exercise. At the start of the session, a section from a formal report assignment written by a previous student was circulated to them. We then explained to the students what peer review was (and what it was not) and what the benefits of undertaking peer review would be for them. We provided them with examples of good and bad feedback, talking them through each example and explaining why this was the case. We then asked them to use the rubric on the feedback form (see Table 2 below) to provide written feedback on the extract.

Section	Details	What went well	What could be better
Writing Style	Is the work clear and concise? It should not use personal pronouns	<i>The writing was clear and easy to read. The sentences all followed on logically from one another and the meaning was clear.</i>	
Quality of Writing	No grammatical or spelling mistakes, no technical errors.	<i>Overall, the quality was to a high standard, and it was a pleasure to read. The level of technical information presented was excellent</i>	<i>Some grammatical errors spotted in places (marked in Turnitin), proof reading or use of a digital spellchecker would help to spot these</i>
Formatting	Text should be within margins, fully justified, readable and equations created in an equation editor.		
Clear Sections	Does it follow a logical flow as per the requirements of the assignment?		
Quality of Diagrams	Are there clear labels/titles? Is there a caption? Is the diagram clear at what is representing?		
Citations and References	Are there in-text citations to support statements that the writer is making? Are they from high-quality, peer reviewed sources?	<i>References are listed at the end of the report. Harvard referencing was used.</i>	<i>Some of the references are not quite high quality e.g., use of Wikipedia, BBC etc is not considered peer review sources.</i>
Research Question	Is it obviously from the title or abstract? Is it unique/sound interesting?		

Table 2: Example Rubric used in the Formative Training Session. Sentences in italics were provided as an example to students.

Students were encouraged to discuss their thoughts with each other. We also asked them to raise their hands if they had any questions, and to indicate when they had completed the feedback form. When responding to queries and assessing the quality of the feedback, we tried to use coaching-style responses where possible: asking students what they thought the answers might be and suggesting they assess their responses against the examples of model feedback they had been given. Completed feedback forms were collected in at the end of the session to provide a benchmark for the quality of the initial reviews.

## **Research and Writing Assignment**

The 'Research and Writing' component of the Routes to Success module began in Week 9 of Semester 1. Students were asked to complete a technical literature review on a topic from the Engineering without Borders People Design challenge. They had two timetabled sessions per week: an hour-long lecture and a one-hour workshop. The lectures were designed to introduce students to academic writing, conducting a literature review, referencing, finding sources, and understanding different writing styles. The workshops were used to provide them with time and support to write their peer reviews. Appropriate resources were also uploaded to the student's VLE for further signposting and support.

The weighting of the peer review element within the Research and Writing component of the module was 10%. Exactly how that contributed to the overall module mark can be seen in Table 1. Marks in the peer review element were given both for participation and the quality of the completed peer review. Peer Review Task 1 and Task 2 were each worth 3% of the grade and Task 3 was worth 4% of the grade. The peer review tasks were integrated into the teaching schedule so that students could complete their assignment in stages over the course of the semester, getting sections of their work peer reviewed as they went.

### **Peer Review Tasks**

Information relating to the peer review tasks was communicated to the students via the VLE, with further reminders being given in class. Peer Review Task 1 required students to choose a topic from the Engineering Without Borders design brief. They then had to write a short paragraph explaining what their chosen topic meant in relation to the Engineering without Borders project, and reference at least three suitable scholarly sources, such as academic journals or conference papers. They submitted this via Turnitin and, as is explained in more detail below, their work was randomly and anonymously assigned by the VLE to another student who was then asked to review it. Task 2 built on the work from Task 1 and required the students to formulate a research question arising from their chosen topic. They also had to create an appropriate title for their assignment and expand on the literature review component so that it included six high-quality references. The recommended length for this second task was 500-1000 words, including the work already completed for Task 1 (which could include any changes students had made after the first tranche of peer feedback). Task 3 required students to submit a full draft of their assignment for review. This was scheduled two weeks before the final deadline and it was expected that students would have the bulk of their assignment ready at this point. The peer review rubrics for all three tasks were linked to the marking criteria for the assessment and this was reinforced by asking the students to reference those criteria when giving their feedback in the reviews. They were also asked to grade the work they were reviewing, with the explicit proviso that this grade was based on their judgement and would not necessarily reflect the final grade awarded by module staff. Finally, we wanted to encourage the students to complete full and helpful reviews, so a mark was awarded by staff based on the quality of the feedback they produced. The weighting criteria for each task changed as the review process progressed to reflect the growing competence of the students and the increased sophistication of their reviews. The reviews were signed off by a member of the teaching team in the class and the feedback was uploaded by the students to the VLE.

### **Blackboard Configuration**

We used our VLE, Blackboard, to facilitate and anonymise the peer review process. In order to review another students' work, students were first required to upload a piece of their own writing. Failure to do so automatically rendered them ineligible to take part in the review stage of that task and meant they forfeited the marks available for this. It also ensured that all students attending the workshop received a piece of work to review. This rule was made clear to the students, both orally and through written instructions. They were also told the dates and times between which they could upload their work, access and review the submissions allocated to them, and the time after which they would be able to access the feedback given to their writing. Students could begin thinking about what they would include in their review before class but were only marked on the feedback they completed during the lesson. This was because we needed to ensure the quality of the feedback was high and wanted to sign it off before it was uploaded. There was a minimum word count for the reviews set at twenty-five words for each section of the rubric. Students had to meet this word limit before being able to submit their reviews electronically.

We also felt that it was important that both the submissions and reviews were anonymous so far as the students were concerned. Staff could see the names of the individuals who had posted submissions and who had reviewed them, but this information was not available to the students. Standard peer review practice is for students to conduct the reviews in person. However, because we did not want their feedback to be influenced by, for example, a friendship with the person whose work they were feeding back on, we decided it would be better to conduct the reviews anonymously (Langan *et al.*, 2005; Arimoto *et al.*, 2015; Petersen 2021; Lin *et al.*, 2001).

### **Workshop Sessions**

Workshop sessions were scheduled in a PC room big enough to accommodate the whole cohort. The module team (comprising three academic staff and two PGTAs) attended each session, along with two members of the Enhancement Team. On arrival, students were provided with a printout of the peer review rubric for that week's task. They then accessed the submission that had been allocated to them for review via the VLE. Whilst some students may have read this prior to the start of the class, we allowed enough time to ensure they could both read and review if necessary, giving them forty-five minutes overall. Initially, students were required to complete their review on a paper form. Once a student felt they had finished, they asked a member of staff to check the quality of what they had written. In most cases the students completed full and detailed reviews, often needing more space than was available on the paper. If the member of staff was happy with the quality of the review, an initial mark was awarded to the student, and they were allowed to transfer their review onto the VLE. Only once the review had been uploaded was the mark finalised. After the end of the workshop, the feedback from their peers was made available to students through the VLE.

### **Limitations**

Whilst this was an innovative, and in some ways experimental project, it did come with some built-in limitations. The greatest of these was perhaps the issue of optimal session length and accommodating this within the timetable. Because of the need to explain the process to the students, plus give them the opportunity to write their first, formative reviews – and for these to then be checked by staff – the initial training session needed longer than the standard (forty-



five minute) teaching slot. Further, because it takes a few sessions before students become fully self-sufficient in peer reviewing, extra time also had to be built into sessions two and three to accommodate the need for staff to check the quality of the reviews, and for these to then be copied over into the VLE by students. We were only able to include a few peer review sessions in the 2022-23 run of the module, and these were not enough to allow the students to become fully self-sufficient. In the 2023-24 academic year (year two of the project), the number of sessions will increase, and we hope this will give students the opportunity to complete the reviews on their own, without the need for staff to double-check them (although random sampling of the reviews via Blackboard would seem to be a sensible quality-control measure). Secondly, linking to this, because the students were learning a brand-new skill, the sessions required a lot of in-person staff support aside from checking the quality of the reviews. As students become more familiar with the process, though, this should decrease too. However, the amount of staff input required at the start should not be underestimated, especially for a large year group. For a cohort of around one hundred students, approximately six staff members were needed for each session. If peer review is going to be used again elsewhere on the course, though, this feels like a reasonable outlay in staff time as we would not need such an intensive training period again. Students may require a refresher session or two, but peer reviewing is a skill which they should be able to pick up again later with relative ease. However, as is the nature of teaching first- or foundation-year students, the peer review process will need to be taught afresh to the new intake each academic year.

## Findings

### ***Attendance and Marks***

There were 96 students enrolled on the Engineering Foundation Year during the 2022-23 academic year, which included students repeating the year. After excluding non-attending students, 88 were eligible for the peer review sessions. Of these, 66 students engaged with at least one review session. Table 3 below demonstrates the number of students who made a submission to Turnitin and who attended the workshop for each task. It also provides an overview of attendance in the 2022-23 academic year.

Session	Submitted Assignment	Attended Workshop Session	Average Word Count
Peer Review Task 1	66	70	452
Peer Review Task 2	62	63	753
Peer Review Task 3	62	62	1363

Table 3: Overview of Student Attendance in Peer Review Workshops for the Engineering Foundation Year 2022-23

It should be noted that in Peer Review Task 1, four students attended the workshop not having provided a submission beforehand and were therefore not eligible to participate in the reviews. This happened again for one student in Task 2 but for Task 3, only students who had made a submission attended the workshop. Whilst most students attended all three sessions, there were a small handful who participated in the first task only.

Session	Number of Students who received the full mark	Number of Students who received partial marks	Number of Students who received no marks
Peer Review Task 1	65	1	0
Peer Review Task 2	60	2	0
Peer Review Task 3	61	1	0

Table 4: Overview of Mark Breakdown in Peer Review Workshops for the Engineering Foundation Year 2022-23

**Do you have any other comments or suggestions?**  
*PR is completely up to others' opinions and is not helpful at all when those giving comments are foundation year students who have mixed levels of understanding and competence, someone may know how to write and give you a constructive review however this is mostly not the case. And is unknown if the person actually knows what they are suggesting or whether it is the right suggestion to make!*

Figure 1: A comment received from a student after completing the post intervention survey in the 2022-23 year.

Out of all three sessions, there were only one or two instances where students did not receive the full mark available for the exercise (Table 4). On all these occasions, the students published their feedback without the member of teaching staff signing their review off first. Consequently, the feedback was not of high enough quality to obtain the full mark.

**Keywords highlighted from the Student Survey:**  
*Helpful, Detailed, Constructive, Too Critical, Difficult to Understand*

Figure 2: Student responses to peer review from the post-intervention survey in 2022-23

### **Observations**

Although not all the students came to every session, a very high rate of attendance was achieved overall (see Table 3). Despite the sessions only accounting for a small percentage of the overall module mark, the fact that most students did attend suggests to us that they both enjoyed the sessions and found them useful. If this had not been the case, we would have expected to see a higher drop-off in attendance as the sessions progressed. It is also important to note the atmosphere in the sessions: they were lively and gave every indication that the students were enjoying the peer review experience. This in and of itself is encouraging. Regarding the final grades awarded for the writing component of module, it is sadly impossible to draw a direct comparison between the 2021-22 and 2022-23 cohorts' results given that the format of the 2022-23 assessment differed substantially from the year before. However, academic staff marking the assignments did believe they saw an improvement in the overall standard of the written work submitted. Finally, one of the unintended benefits of the sessions was that because students were exposed each other's written work early in the module, the overall standard of writing increased

noticeably between the first and second tasks. Some of the work submitted for the first task was already of a good or high standard and this appears to have encouraged those who were not writing to such a standard to 'up their game' and submit writing of higher quality next time round.

There were also aspects of the intervention which did not go to plan. One of these was the small number of students who responded to the final evaluative survey. It was distributed rather late in the process and, therefore, some students may either have not picked up the email with the survey link or decided not to bother completing it. This was probably compounded by survey fatigue, which can be an issue at the end of the academic year. Next year, we will ensure a much faster turn-around on both our (new) pre- and (existing) post-intervention surveys. Further, by emphasising in-person attendance at the peer review sessions – with their lively atmosphere – we may unwittingly have worked against the interests of those students who do not work well in such an environment. Next year we will endeavour to find a way of working which allows students who require a calmer environment to flourish – perhaps the use of a quiet room near the main classroom. We also need to be more forthcoming in reiterating the benefits of the process to students and, alongside this, we will be emphasising the fact that they are not being asked to provide the same level of feedback as academic staff – or indeed comment upon anything which is beyond their expertise. This is not a novel problem (Lin *et al.*, 2001; Wu and Schunn, 2021) but the fact one respondent to the survey (Fig 4) specifically articulated that they felt peer feedback was inferior to tutor feedback means we did not get our message across as comprehensively as we would have liked.

The screenshot shows a student review interface. On the left, a student's review is visible, titled "Access To Reliable Energy". The review text discusses the drive to reduce inequality and improve the world, mentioning Scotland's target of net-zero and the use of fossil fuels. On the right, a panel titled "QUESTIONS COMMENTS" contains "Instructions" and three numbered questions for the reviewer to answer. The questions focus on topic relevance, citations, and writing style. The student's review on the left is partially obscured by the right-hand panel.

Figure 3: Example of a Student's Review from the Engineering Foundation Year 2022-23

## Recommendations and Conclusions

Summary of recommendations:

- 1) An initial formative training session should be used to ensure all students have the necessary competence to provide useful, constructive reviews to their peers. Because peer review is a process most UK undergraduate students will not have experienced previous-

ly, it is vital to run an in-depth training session before they are allowed to conduct reviews on each other's work. Of paramount importance is the need to ensure they understand what constitutes a good review, and why this is the case. Peer review might also be seen by some students (especially if it is being conducted face-to-face) as being a stressful or judgemental process. Ensuring that the initial training session is calm, relaxed, and enjoyable will go a long way to mitigating this.

- 2) Hold more review sessions. Last year, we only had space in the timetable for a limited number of peer review sessions. Essentially, this meant that we only ran the most labour-intensive initial sessions and did not reap the benefits of the students becoming self-sufficient reviewers. We will be extending the number of sessions this year and look forward to evaluating how the students cope when they are required to work independently. We would also like to expand the use of peer review beyond the Foundation Year to the substantive degree programme. Although non-foundation students would need to receive formative training ensure their competency as reviewers, this could be done using the former foundation students as peer advisors/leaders in the initial training sessions. This would help reduce the need for such intensive staff input at the start of the process. Once students know how to peer review, this is a quick and easy tool for achieving higher levels of writing skills and giving the students the chance to practice those skills in a low-risk environment, without the need for staff to mark and feed back to a whole class on a regular basis.
- 3) Plan accordingly and get everyone on board – early! In its initial stages, peer review can be time-consuming and requires a great deal of input from staff. This in turn means it is important to liaise both with timetabling and departmental colleagues to ensure the time and personnel are in place to support the process. Staff also need to convince students that this is a learning intervention which will have multiple benefits for them – and emphasise that they are not being asked to do anything which is beyond their current level of expertise.
- 4) Encourage an extended editing/polishing process for written work and understand that this will take longer the more inexperienced students are. Ensure they have the time between reviews to make the necessary changes to the work they will be submitting for summative assessment.
- 5) Recognise that not all foundation students will excel in this exercise and that is OK. Not everyone is going to be a Nobel laureate, and neither is everyone in the class going to be a natural at academic writing – even if peer review is in place. Peer review, like all learning interventions, is essentially a process: some will grasp what is required quickly, some will not. Likewise, some will improve their writing dramatically, whereas others may struggle to progress. Be mindful of those with additional needs and those who may not have English as a first language. The benefits that should accrue, though, go far beyond writing skills and reach beyond the classroom into the world of employment. For those reasons alone, we would suggest peer review is an experiment worth running.

In conclusion, the project's success is evident in high attendance rates and improved student engagement during peer review sessions, contributing to enhanced writing skills. These initiatives help Foundation Year students to develop their communication skills, support academic growth and increase their confidence in their ability to tackle tasks. However, some challenges, such as low survey response rates and the need for calmer review environments, were identified. Recommendations include formal training, expanding review opportunities, supporting the practice throughout degree pathways, emphasising peer review's long-term benefits, and planning for successful implementation.

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## References

- Boud, D. and Falchikov, N., (2006) 'Aligning assessment with long-term learning' *Assessment and Evaluation in Higher Education* 31:4 399-413 Available at: doi.org/10.1080/02602930600679050.
- Carless, David and Boud, David, (2018) 'The development of student feedback literacy: enabling uptake of feedback' *Assessment and Evaluation in Higher Education* 43:8 1315-1325 Available at: doi.org/10.1080/02602938.2018.1463354.
- Dougherty, S, (2022) 'What Barriers Prevent Foundation Year Students from Attending Academic Support Sessions and How Might These be Overcome?' *Journal of the Foundation Year Network*, Volume 5 125-142.
- Flower, L., J. R. Hayes, L. Carey, K. Schriver, and J. Stratman., (1986 ) 'Detection, Diagnosis, and the Strategies of Revision' *College Composition and Communication* 37:1 16–55.
- Goldingay, Sophi; Farrugia, Dennis; Hitch, Danielle; Ryan, Juliana, (2014) "'The university didn't actually tell us this is what you have to do": Social inclusion through embedding of academic skills in first year professional courses' *The International Journal of the First Year in Higher Education* [S.l.] 5:1 43-53 Available at: doi.org/10.5204/intjfyhe.v5i1.194.
- unn, C., Hearne, S., & Sibthorpe, J., (2011) 'Right from the Start: A Rationale for Embedding Academic Literacies into Courses and Curriculum' *Journal of University Teaching and Learning Practice* 8:1 70-80 Available at: doi.org/10.53761/1.8.1.6.
- Huisman, B., Saab, N., van Driel, J. and van den Broek, P., (2018) 'Peer feedback on academic writing: undergraduate students' peer feedback role, peer feedback perceptions and essay performance' *Assessment and Evaluation in Higher Education* 43:6 955-968 .
- Hoo, Hui-Teng, Deneen, Christopher and Boud, David, (2002) 'Developing student feedback literacy through self and peer assessment interventions' *Assessment and Evaluation in Higher Education* 47:3 444-457 Available at: doi: 10.1080/02602938.2021.1925871.
- Klinger, Christopher M. and Murray, Neil, (2012) 'Tensions in higher education: widening participation, student diversity and the challenge of academic language/literacy' *Widening Participation and Lifelong Learning* 14(1) 27-44.
- Krutkowski, Sebastian, (2017) 'A strengths-based approach to widening participation students in higher education' *Reference Services Review* 45 (2) 227-241.
- Lea, M. R. and Street, B. V., (1998) 'Student writing in higher education: an academic literacies approach' *Studies in Higher Education* 23:2 157-172.
- Lin, S. S. J., Liu, E. Z. F., & Yuan, S. M., (2001 ) 'Web-based peer assessment: Feedback for students with various thinking-styles' *Journal of Computer Assisted Learning* 17:1 420–432 Available at: doi.org/10.1046/j.0266-4909.2001.00198.x.
- Lu, J., and Law, N., (2012) "Online Peer Assessment: Effects of Cognitive and Affective Feedback." *Instructional Science* 40 257–275 available at: doi: 10.1007/s11251-011-9177-2.
- Lundstrom, Kristi and Baker, Wendy (2009) 'To give is better than to receive: The benefits of peer review to the reviewer's own writing' *Journal of Second Language Writing* 18:1 30-43.
- Macnaught, Lucy; Milne, John; Bassett, Mark; Jenkin, Chris, (2022) 'Sustainable embedded academic literacy development: the gradual handover of literacy teaching' *Teaching in Higher Education* Available at: doi:full/10.1080/13562517.2022.2048369.

- McWilliams, Robyn and Allan, Quentin, (2014) 'Embedding Academic Literacy Skills: Towards a Best Practice Model' *Journal of University Teaching & Learning Practice* 11:3 Available at: <http://ro.uow.edu.au/jutlp/vol11/iss3/8>.
- Nicol, D., Thomson, A. and Breslin, C. (2014) 'Rethinking feedback practices in higher education: a peer review perspective' *Assessment and Evaluation in Higher Education* 39:1 102-122 2014.
- Patchan, Melissa M., Schunn, Christian D. and Clark, Russell J. (2018 ) 'Accountability in peer assessment: examining the effects of reviewing grades on peer ratings and peer feedback' *Studies in Higher Education* 43:12, 2263-2278 Available at: doi: 10.1080/03075079.2017.1320374.
- Richard, Jason and Tanner, David (2023) 'Peer Assessment, Self-Assessment, and Resultant Feedback: an Examination of Feasibility and Reliability' *European Journal of Engineering Education* 48:4 615-628.
- Reddy, K., Harland, T., Wass, R., Wald, N. (2020) 'Student peer review as a process of knowledge creation through dialogue' *Higher Education and Research Development* 40:4 825-837.
- Serrano-Aguilera JJ, Tocino A, Fortes S, Martín C, Mercadé-Melé P, Moreno-Sáez R, Muñoz A, Palomo-Hierro S, Torres A. (2021) 'Using Peer Review for Student Performance Enhancement: Experiences in a Multidisciplinary Higher Education Setting' *Education Sciences* 11:2:71 Available at: [doi.org/10.3390/educsci11020071](https://doi.org/10.3390/educsci11020071).
- van den Berg, I., W. Admiraal, and A. Pilot 'Designing Student Peer Assessment in Higher Education: Analysis of Written and Oral Peer Feedback' *Teaching in Higher Education* 11:2 135–147 2006.
- Vickerman, Phillip (2009) 'Student perspectives on formative peer assessment: an attempt to deepen learning?' *Assessment and Evaluation in Higher Education* 34:2 221-230. Available at: doi: 10.1080/02602930801955986.
- Washington University in St Louis (2023) *Planning and Guiding in Class Peer Review* Available at: <https://ctl.wustl.edu/resources/planning-and-guiding-in-class-peer-review/> Accessed 10<sup>th</sup> December 2023.
- Wingate, U., (2006) 'Doing away with "study skills"' *Teaching in Higher Education* 11:4 457-469.
- Wingate, U. and Tribble, C., (2012) 'The best of both worlds? Towards an English for Academic Purposes/Academic Literacies writing pedagogy' *Studies in Higher Education*, 37:4 481-495.
- Wu, Yong and Schunn, Christian D. (2021) 'The Effects of Providing and Receiving Peer Feedback on Writing Performance and Learning of Secondary School Students' *American Educational Research Journal* 58:3 492–526.
- Yalch, M. M., Vitale, E. M., and Ford, J. K., (2019) 'Benefits of peer review on students' writing' *Psychology Learning & Teaching* 18 317–325.
- University of Strathclyde *Re-engineering Assessment Practices in Higher Education* (2007) available at <https://www.reap.ac.uk/> (accessed: 14th March 2022).

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