

INTRODUCTION

The benefits of peer practice exchange have been strongly emphasised in the recent literature, with Harper and Nicolson (2013) highlighting its necessity to build an ongoing dialogue, and Hattie (2015) assessing this practice as the second most impactful on students learning. Furthermore, undertaking two peer practice exchanges is not only a condition to attain Fellowship of the Higher Education Academy (FHEA), but it was also made a school-wide PDR objective for the Warsash School of Maritime Science and Engineering. Finally, it is a clear part of Solent University's strategic plan for constructing an excellent university:

“Ensuring effective learning and teaching through peer observation of teaching”

Building on the benefits of peer practice exchange, and also recognising the importance of soft skills, such as presentation, for students' employability, peer practice exchange was implemented amongst a group of third year undergraduate students undertaking their final year dissertation.

APPROACH

- Student of the BEng (Hons) Yacht and Powercraft Design and BEng (Hons) Yacht Design and Production are required to undertake a year long dissertation worth 40 credits. This is assessed in three stages: an early proposal, a mid-year presentation, and a written dissertation at the end of the year.
- Students have historically done much better in the proposal and dissertation, thanks to three years of experience writing several reports a year. The presentation however, proved to be the greatest weakness, primarily due to a lack of practice.
- In order to provide students with not only practice, but as much feedback as possible prior to the summative presentation, a 'project club' was organized to promote peer practice exchange.
- Every other week, some of the 9 students would present in from of their peer and myself. Each student therefore had the opportunity to present three times, totaling 27 different feedbacks on their performance, using a specifically developed peer observation template.

PEER REVIEW TEMPLATE

To stimulate constructive feedback that would benefit all participants, a very simple template was created for the undergraduate students presenting their research. The template is depicted in Figure 1, and comprises 3 columns:

+ positive aspects: practices that should be kept and have given strength to the presentation, and could be recommended to others. Indeed, the peer review is also an way for the reviewer to identify suitable practices for their own presentation.

↗ areas of improvement: rather than highlighting issues, or having a 'negative' section, the idea is to provide a platform for constructive suggestions, and how to improve. Students can then utilize the feedback to present a refined version of their work during the next project club, and get further feedback on their honed presentation.

? questions: this is intended to ask any questions one might have about the presentation, and to help student realize potential gaps in their rationale or research explanations. Moreover, this is an opportunity for the presenter to identify the range of questions that could be asked, in order to be better prepared for the summative one, and build up confidence.

+	↗	?

Figure 1: Peer observation template used for undergraduates.

IMPACT

The peer practice exchange in undergraduate research proved very successful, with a high student satisfaction and superior achievements in the summative presentation. But perhaps the most sticking evidence of the positive impact of this initiative is the fact that:

- Four of the nine students decided to go and present their work at the **British Conference of Undergraduate Research (BCUR)**
- One of them further presented at the **Research, Innovation and Enterprise Conference (RIEC)**, achieving second place in the 2-minute dissertation competition.

This is the very first instance of students from the Yacht Engineering program engaging in external promotion of their research at undergraduate level.

CONCLUSIONS

The recognized benefits of peer practice exchange are not only beneficial to academic staff, but based on the presented trial, a strong case can be made for its implementation in undergraduate research. By using a very simple template to promote constructive feedback, the confidence and presentation skills of the students was greatly improved. This transpires not only in there academic performance, but also in their extra-curricular activity, all of which will strengthen their ability to gain employment in the future.

NEXT STEPS

- Following the success of the initiative, it will be repeated next year with a refined and more structured framework, including a pre-defined calendar of peer reviews, and a more developed template, aiming to dissociate between the presentation's delivery style, and its technical content.
- Finally, this was only implemented for one of the several groups of third year Yacht Engineering students, and it is hoped it will be more widely adopted in the future. This would allow to expand the findings of this preliminary study to a whole year group, and thus gather more significant qualitative and quantitative data on the benefits of peer practice exchange in undergraduate research.