

Creating a novel learning environment through an online research lab

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Poster summary

The shift to online learning in March 2020 resulted in a broad spectrum of challenges, including how to deliver remote teaching and maintain engagement. In response, an Online Research Lab (ORL) innovation was conceived. Undergraduate and Postgraduate thesis project students, Volunteer Research Assistants, and Student Research Interns working with a staff member (Dr Craig) were invited to join an ORL and contribute to lab activities. Feedback indicated the ORL was a valuable tool in developing students' research-related knowledge, experience, and skills, promoting employability, and maintaining a sense of community during challenging circumstances. From this, the ORL innovation will continue to be used to complement in-person teaching.

1. What was the problem? The need for innovation

- The move to online learning in 2020 resulted in a range of challenges for Higher Education institutes.
- Challenges included how to best deliver traditionally in-person, synchronous teaching activities online to *all* students, taking into account their varying individual circumstances (e.g., Adedoyin & Soykan, 2020).
- Protecting student engagement and wellbeing during a turbulent period were also paramount.
- These challenges offered opportunity for responsive innovations targeted towards maintaining student engagement, delivering high-quality learning online, and supporting students' wellbeing, including minimising feelings of isolation.

The innovation:

To address some of these challenges, an Online Research Lab (ORL) innovation was conceived. The ORL would act as a facia for a support and development structure to benefit students' studies, support their wellbeing, and improve employability.

3. Did students benefit from the innovation? Feedback and reflections

- The ORL innovation is not resource or time intensive to deliver.
- Attendance at lab meetings was sometimes variable but generally strong during term time.
- Student feedback has been very positive - see examples below. Informal discussions highlighted that students felt valued as lab members and appreciated the sense of community that the lab built between members, especially during a period of relative isolation.
- Personally, I enjoy delivering the ORL and observing students develop, including their self-belief as a learner, which has been identified as a valuable aspect of student success (e.g., Edgar et al., 2019).

Example feedback:

"Being part of the research lab group has been great!";
"I've enjoyed the regular meetings, which I've found interesting and helpful"
"Seeing research presentations was very helpful for my own development".

2. How was the innovation delivered? Methods and considerations

- Optional 30-minute group meetings at a set time, once every two weeks.
- ORL is purely online and delivered through cross-device platform - Microsoft Teams - to encourage flexibility and accessibility, and minimise the need for resource.
- All students working with Dr Craig in a research capacity (taught or extracurricular) were invited to join the ORL, which has included UG and PG thesis students, volunteer researchers, and research interns.
- Meetings involve a diverse range of activities including research talks from lab members and guest speakers, research skill training, and discussions about employability and transferable research skills.
- All ORL members hold an equal seat at the table and can direct meeting content, for example, through inviting a guest speaker, sharing a paper to discuss, or raising current issues in their research.
- Aside from regular lab meetings, the lab Teams group offers a place for members to meet and discuss their research, post questions, research papers, news articles, and other useful resources for the group.



Research Lab

4. What can be learned from the innovation? Future directions and challenges

- The student population that this innovation was delivered in were familiar with Microsoft Teams, and this platform did suit the innovation well, but it could be delivered through other platforms.
- Students viewed themselves as a partner in this open learning environment, which resonates with work showing that such partnerships promote engagement and learning (e.g., Healey et al., 2014).
- I found an important aspect of the ORL was giving ownership of ORL activities to students and I will increase their involvement in the future, for example, where they can coordinate and lead meetings.
- It remains unclear how this online innovation will sit alongside a return to in-person teaching activities and whether this would have a detrimental effect on attendance and engagement.
- All considered, I feel the ORL innovation is valuable for students and will continue to use it, irrespective of whether teaching activities are delivered in-person or online.
- The flexibility of the ORL and student-led aspect can allow it to evolve over time to protect relevance.