HYBRID TEACHING

THE UNIVERSITY of EDINBURGH

Prof Jose Vazquez-Boland (Infectious Diseases), Ute Barrett, Kacper Lyszkiewicz, Vanessa Mather (EMS Digital Education Unit), Dr Philip Larkman (Biomedical Teaching Organisation)

Co-ordinating organisational complexity to enact simple solutions that promise big change

UoE's commitment to provide an engaging and stimulating learning and teaching experience is facing the challenge of COVID-19. The barriers to face-to-face teaching are impairing the student experience and creating a sense of social isolation, impacting on mental health (Savage et al, 2020) despite efforts in online learning provision. Building a suitable academic community environment solely online is difficult, and hybrid teaching is a sensible compromise with enormous potential that seems to offer the best of both worlds: keep students and staff safe, and provide a learning and teaching experience that makes it possible to 'be together'.

Basic core idea

Live/synchronous, interactive engagement with both in-person and remote audience belonging to the same classroom cohort, with linked lecture recording.

Planning

Overview of our experience
Designed, developed and tested a hybrid teaching approach in Biomedical Sciences
Session plan:

- students come into the lecture theatre, others stay at home, rota approach, timetabling will tell them who is in which location
- session is recorded via Media Hopper Replay (Echo360), students don't use laptops in lecture theatre because of sound interference
- lecturer has a camera(s) which captures him or her in the classroom so that the remote audience can see him/her and have a "feel" of the real classroom environment
- students at home interact in the Teams chat (are muted during lecture) – tutor/demonstrator keeps an eye on chat
- questions at the end of the lecture
- clean everything at the end

Practical advice for staff

- design a framework for processes and development
- take advice and learn from other Schools trialling the hybrid approach (e.g. Engineering) and work closely with the Learning Spaces Team and Learning Technologists
- test, test, test in the actual locations – they are all different in terms of equipment!
- train staff
- ask lecturers to practise

Example

BMS ready to run this in UG years 1 to 3 and potentially also run final year Honours project presentations in similar sessions
1st year Medical Biology course >300 students &
2nd and 3rd year courses ~100 students, ~20 staff

Technology

We used the following technology to facilitate hybrid teaching:
Students at home: own device (desktop computer, laptop, tablet)
In the lecture theatre: Media Hopper Replay Echo 360, Microsoft Teams desktop app, a web camera.

Challenges & Constraints

Organisational complexities in co-ordinating the academic and pedagogical inpu (School's teaching organisation) and the technological inputs (live streaming software, via teaching and learning support; hardware and integration, via IS support).
Our example:

- is the tech there? no Teams desktop app which causes annoying workaround problems, initial audio problems (Teams app was installed [Hybrid Level 1] but audio via Teams [Hybrid Level 2] not yet available everywhere)
- students may not turn up (e.g. recent news reports & Engineering experience)
- complicated set of instructions for lecturers to follow
- training needs – plan is to train lecturers, tutors and demonstrators, admin staff in the buildings
- An assistant available to the lecturer during hybrid teaching

Framework/model

Iterative, reflective process by which we adopted the development of this technology:

- bring together academics, learning technologists and the experts in Information Services who understand how to implement the technology in order to share the ideas about why we want to deduce this
- as a result, overcome the technical barriers that then can be surmounted to allow hybrid teaching to be produced and delivered.

Key element: bringing together of all those stakeholders was the challenge because there was not a defined pathway or structure to bring together academics with the people who were involved in the delivery or the understanding of this technology.

Main problem:

Who exactly had to be approached and who was responsible for the different aspects involved in the hybrid approach. Once we identified who might be able to help us everything worked very easily.

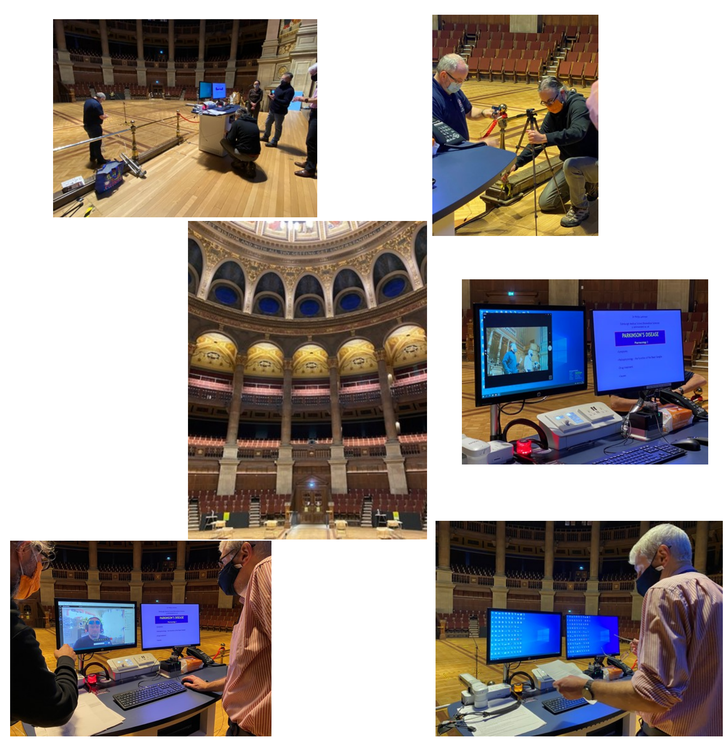
Framework:

Identify at the outset:

- key elements that you want to address
- key stakeholders: with whom you need to address them
- who has responsibility for allowing things to go forward (e.g. Learning & Teaching Spaces Team)
- this has budgetary implications (e.g. buying cameras)

Take-home message: most of the technology is already available, it just needs establishing institutional co-ordination channels – functional and appropriate use of current technology will allow us to deliver this type of teaching.

Hybrid Teaching Prep



Technology and procedural testing being carried out in McEwan Hall, University of Edinburgh in December 2020 and January 2021.

Conclusion

The hybrid teaching approach is simple and promises big change but complexity lies in co-ordinating the different sectors of the University necessary to achieve it. The challenge lies in successfully integrating and coordinating the efforts of IS support, teaching support and academics through dedicated, teaching/learning-oriented communication channels between these key actors.

References

Savage, M.J. et al, 'Mental health and movement behaviour during the COVID-19 pandemic in UK University students: Prospective cohort study', Mental Health and Physical Activity, Vol. 19, Oct. 2020, 100357, doi.org/10.1016/j.mhpa.2020.100357