



## Report

This event was held as an online workshop with over 100 participants from across the UK and was co-created and co-delivered by Dr Elisabete Silva, Dr David Tree, Dr Sabrina Tosi and Dr Nick Morris at Brunel University London.

A year on from the onset of the COVID-19 pandemic, the aim of this workshop was to encourage academics to reflect on the positive and negative implications of the changes in teaching and learning caused by the global lockdown. Also, it provided the forum to initiate discussions around enhancement and innovation in teaching practices.

In summary, the meeting was framed and structured around three questions:

- 1 – What lessons have we learned from teaching in a pandemic?
- 2 – What approaches have improved the teaching and learning experience?
- 3 – How will these experiences inform the teaching of the Biosciences graduates of the future?

In order to achieve this, the workshop was designed to give opportunity to colleagues to share examples of their practice, followed by discussions and interactive sessions.

The workshop was organised into three sessions:

### **Session 1 - Teaching in Time of COVID – Chaired by Dr Sabrina Tosi (Brunel)**

Dr Emmanouil Karteris (Brunel) kicked off this session with a very interesting talk on Team-based Learning (TBL) as an effective way to enhance undergraduate teaching. He described the concept of the approach and how he was able to move this online following lockdown. He was then followed by Dr Lorenzo Santorelli (Surrey), who discussed the challenges of hybrid teaching and presented a really interesting success story on the way he supported and guided students through a combination of face to face, online and laboratory teaching sessions. Dr Annabelle Lewis (Brunel) then shared her own experiences on how best to structure online teaching and resources to ensure maximum student engagement and learning.

After a coffee break, Dr David Smith (Sheffield Hallam) gave a fantastic talk on his and his colleagues' work developing #DryLabsRealScience, a collaborative network which addresses the virtual delivery of the practical experience by compiling and sharing virtual resources for simulation tools, practical classes and assessment. Dr Smith was followed by Dr Thomas Miller (Brunel) sharing the challenges and opportunities he faced by delivering lab practicals in a pandemic and Drs Nicholas Worsfold and Joanna Bagniewska (Brunel) who talked about the delivery of self-directed field courses due to travel restrictions and how these can create opportunities for a new, flexible and exciting new model for local exploration. The session ended with an overall discussion on the lessons we learned and what new teaching approaches we would keep after the lockdown.

During the lunch break, attendees were invited to watch the videos created by Dr Cristina Pina - Using a Public Engagement Activity to Enhance Student Engagement During Remote Learning and Dr Raha Pazoki - Response and challenges of remote delivery of Final Year Project.

### **Session 2 - 'At home' Assessment – Chaired by Dr David Tree (Brunel)**

The first speaker in this session was Dr Paola Campagnolo (Surrey) who described her work supporting students to develop resilience and improve their emotional interaction with feedback. This was followed by a talk from Dr Nicholas Morris (Brunel) where he addressed the question 'Is it

possible to build a 'cheat proof' online assessment?' and provided detailed suggestions on how this can be done in a fair and effective way.

This session culminated with a discussion around 'what works when assessing remotely?'

### **Session 3 – Pastoral care and student experience – Chaired by Dr Elisabete Silva (Brunel)**

Dr Chris Headland (Lincoln) started the session with an inspirational talk about pastoral care in the digital classroom and shared some interesting examples from his own practice on ways to reach out to students and provide the support they need in a remote environment.

Recognising the need to get students' views on dual delivery, what works and what doesn't, the last part of session 3 focused on the student perspective. Students from different levels studying Biosciences-related degrees at Brunel were invited to join us for some Q&A. Firstly, the students introduced themselves and gave a brief overview of their learning experience during lockdown. They then addressed some questions, including: *i)* 'What was your experience of being a university student through a pandemic? *ii)* What were your greatest challenges during this period? *iii)* Can you give us some examples of changes in teaching that were positive and some examples of what didn't work? Overall, the main message from students was that learning remotely was quite lonely and they missed the interaction with their peers and academics. They also missed the 'campus' experience and wished they could have had more practical classes. On the other hand, they really appreciated the amount and quality of asynchronous material and pre-recorded videos, which they suggested should be maintained in the future.

### **Session 4 - Biosciences graduates of the future – Chaired By Dr Elisabete Silva (Brunel)**

Attendees watched a video produced by the Professional Development Centre (Brunel) highlighting the expectations and requirements of employers from biosciences graduates. This video, together with the previous talks, framed the breakout room discussions. Attendees were allocated to one of 9 breakout rooms (5-6 people) and each group was asked to address one of three key questions: *i)* what did we learn? *ii)* what will we keep? *iii)* what will we change? The groups recorded their views on padlets and shared those with other groups in a final discussion session.

The overall consensus that the workshop was that, while the pandemic and lockdown posed significant challenges to academic staff and higher education institutions, it also provided the framework and the opportunity to revolutionise the way we teach, the way we assess and the way we engage with students. By moving to a blended, more flexible teaching approach, it could be argued that HE has finally embraced the 'digital age' and started to meet the current and future needs of students and employers.

In summary, the take home message from this workshop was as follows:

#### What did we learn:

- Students really like guided-learning with pre-recorded material made available to them.
- Students like to be able to ask questions in the chat of virtual lectures
- Short recordings are more appreciated by students than long lectures
- Students appreciate an opportunity for discussion (rather than passive learning)
- Social distancing allowed students to focus more and work independently in lab practical classes
- Data analysis and bioinformatics is difficult to teach online
- The social aspect of university life is very important for students' experience and learning
- Simultaneous delivery (face to face and online) is challenging
- A structured weekly timetable helps with student engagement
- The balance asynchronous/synchronous teaching is difficult to perfect

#### What will we keep:

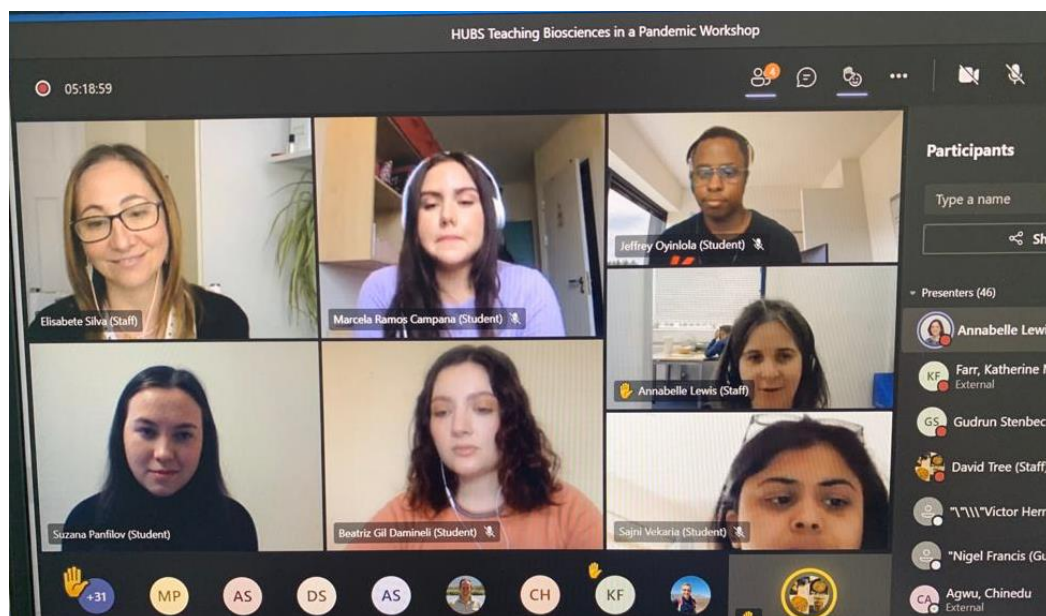
- Stream live sessions
- Virtual field trips
- Virtual practical classes should be kept as pre-lab sessions
- Keep pre-recorded materials and use 'live' sessions for more interactive exercises
- Use interactive chat in online lectures
- Expand the use of simulations

- Develop short statistical video tutorials
- Share tips on reducing collusion and plagiarism
- A well-structured timetable with a good balance of virtual and face to face sessions
- Decide on whether to deliver a session online or face to face based on what works better and is more useful for students (rather than return everything to the lecture room as before)

#### What will we change:

- Go back to real field trips
- Vary activities to prevent 'zoom fatigue'
- Think carefully about the best use of limited/restricted physical space at university
- Use online teaching to break down long lectures
- More flexibility in learning - allowed for by asynchronous material and online sessions - improves inclusivity
- Adopt a hybrid system. Have face-to-face lectures but keep the asynchronous material and revision (MCQs, PBL, TBL) online
- Introduce engagement score for formative, non-compulsory sessions

All attendees were invited to join a Microsoft Teams team where all resources and information about the workshop were shared. This team will remain open to allow participants to continue discussions and sharing of good practice in the future.



*Chatting to our students. Q&A session with students on their learning experience during the pandemic.*