‘Blended’ teaching for undergraduate and postgraduate students in psychology and neuroscience

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Overview of session

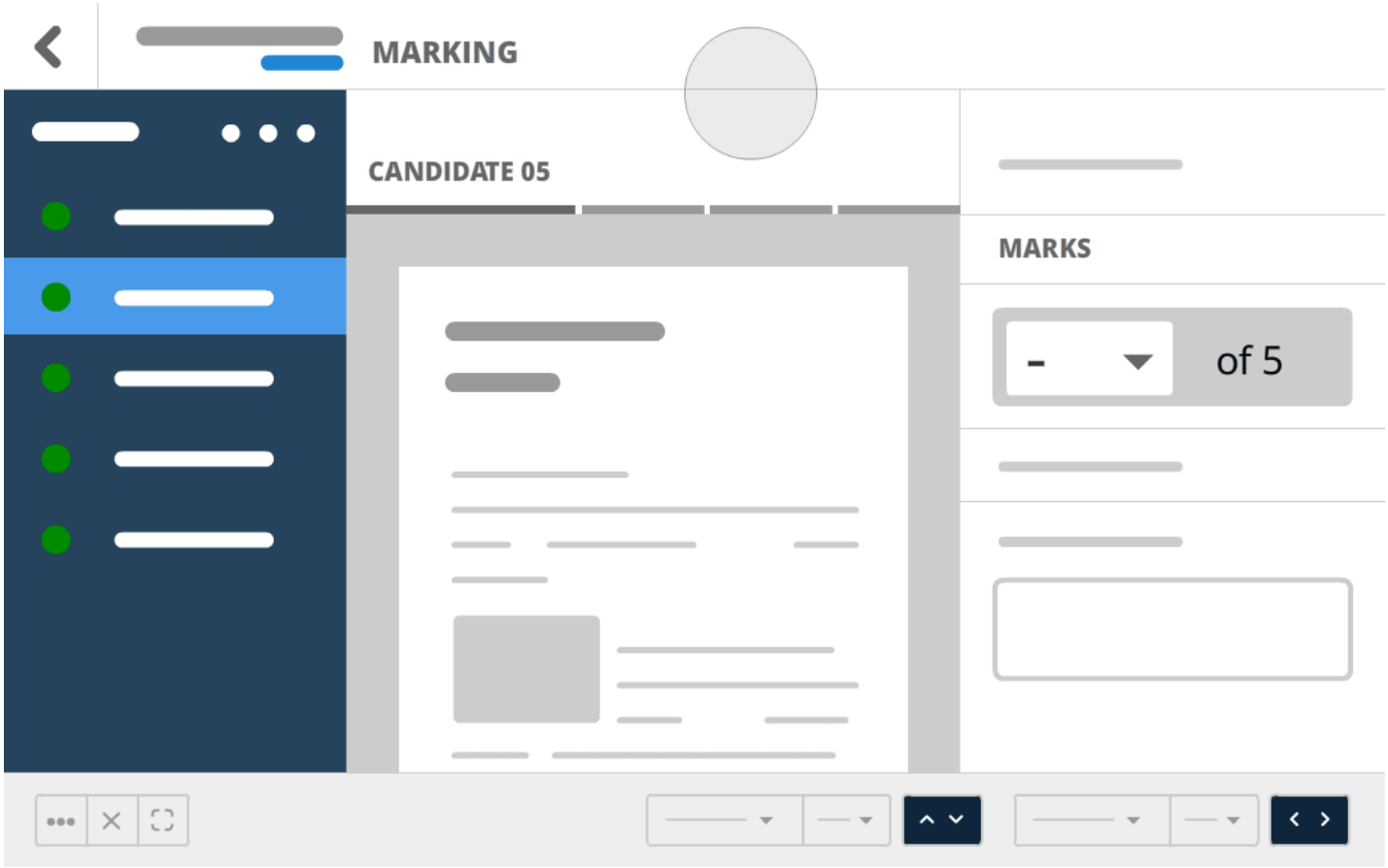
- How did Bath change its approach to teaching in the light of social distancing restrictions and lockdowns? The ‘Bath blend’
- What did we try? What worked and what didn’t? Which aspects are likely to be retained in future years?
- Implications of online teaching for the UK university sector – and for next academic year, if we have to revert to online teaching again?

The ‘Bath blend’

Live online interactive lectures on Zoom or Teams – two 1 hr sessions per week for each unit

In-person teaching in groups of ~20, all socially distanced and wearing masks – 4 hr sessions

The ‘Bath blend’



We used Inspera to run online exams and Moodle to collate all unit resources and allow students to submit essays and presentations

Designing an online course

- Start by considering the overall purpose of your unit / module

What do students need to know and what should they be able to do by the end of their degree course?

What is the role of your unit in helping students get there?

Reflecting on these questions can help you to keep the big picture in mind when you design your module and teach your material

Designing an online course

- Take a course-wide approach

Identify how each activity will build on, reinforce or develop learning and assessment across the unit or course

Draw on your previous experience to identify sequencing and scaffolding of complex ideas that students require

Make this explicit to students before, during, and after the session - when students are able to see the reasoning behind teaching activities and recognise the purpose of the material being learnt, they are more likely to engage.

Designing an online course

- Identify key takeaway messages for each session and make these explicit

Develop your learning narrative and share it with your students. Take 1-2 minutes of each session to outline:

- what students will be learning with you and why, including which skills they will develop;
- links to prior and subsequent learning on current course but also other courses in degree programme

Designing an online course

- Practice with the tools and technologies you have chosen to use (e.g., Breakout rooms)
- Run a practice session (e.g., an icebreaker) with the students if possible or with colleagues
- Plan for what should students do if their or your technology / internet connection fails (e.g., Moodle failure means they cannot access Zoom link)
- Keep it simple – stick to a clear learning focus and the minimum tools and technologies needed to enable this

Designing an online course

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Planning for blended delivery

The visual below shows how key course, unit, and session level planning elements support one another to produce a clear and coherent understanding of the course that can be used to communicate with staff and students.

Course Intended Learning Outcomes map
To identify clearly how each unit contributes to course outcomes.

Course structure visual
To provide an overview of the key features of each course year.

Course assessment map
To help identify pinch points in each year and how assessment types across the course fit together.

Course topics/ skills map
To identify a cohesive topic-based narrative for the course. To see where key concepts may be reinforced.

Unit map
To provide an overview of the key features of each unit including the topics and skills addressed.

Course and unit weekly plan
Collated from unit and session planning to provide a clear overview of activity each week for staff and students.

Five minute session planner
To aid clarity and coherence around elements of a teaching session.

Session activity outline
To help break down the components and sequence of a teaching session.

Visit: teachinghub.bath.ac.uk/the-bath-blend/essentials

The ‘Bath blend’

- General recommendations for online lectures/learning:

1. Prioritise learning by focusing on what is ‘essential to know’ and removing 'nice to know’; signpost to latter for asynchronous activities
2. Allow for screen breaks, a slower pace, and less content-coverage than typical, in-person lectures (and questions!)
3. Draw from experience of face-to-face teaching to facilitate online sessions, challenging students to think, reflect, explain, and discuss with each other
4. Make use of simple interactive technologies; but ensure that these do not dominate / don’t introduce too many at once!
5. Think carefully about what could be done independently

The ‘Bath blend’

- In-person teaching (IPT) – 4 h of classroom learning with a lecturer/instructor covering transferable skills and unit-specific material (broken into 1 or 2-hour sessions)
- For example, a 2-h session on how to read and critically analyse cognitive neuroscience papers - students were allocated to sections of a paper and asked to work individually & then as a group
- Instructors and students were given worksheets so instructor did not need topic-specific knowledge

The ‘Bath blend’

- Activities that benefit from human interaction and peer support are best suited to in-person teaching:

1. Encourage synoptic thinking: make the most of opportunities to create links *across* units / modules
2. Address areas or topics that you know students struggle with and reinforce key concepts
3. Use collaborative activity to develop students’ peer-to-peer feedback skills
4. For group tasks, enable remote students to work together
5. Consider breaking session into designated chunks, some of which involve students learning directly with teaching staff, while others involve working in groups or independently

Changes to assessment

- We switched from traditional unseen, in-person exams to time-limited, open-book online exams – using a platform called Inspera
- In both of the units I teach on, students were given 24 hours to write 2 extended essays (choosing from 6 possible questions) – each with a 1000-word limit
- They were given the 6 topics, but not the exact questions, in advance
- They were strongly encouraged to treat it as an *exam* rather than coursework and thus to spend no more than 3-4 hours working on the exam within the 24 h period

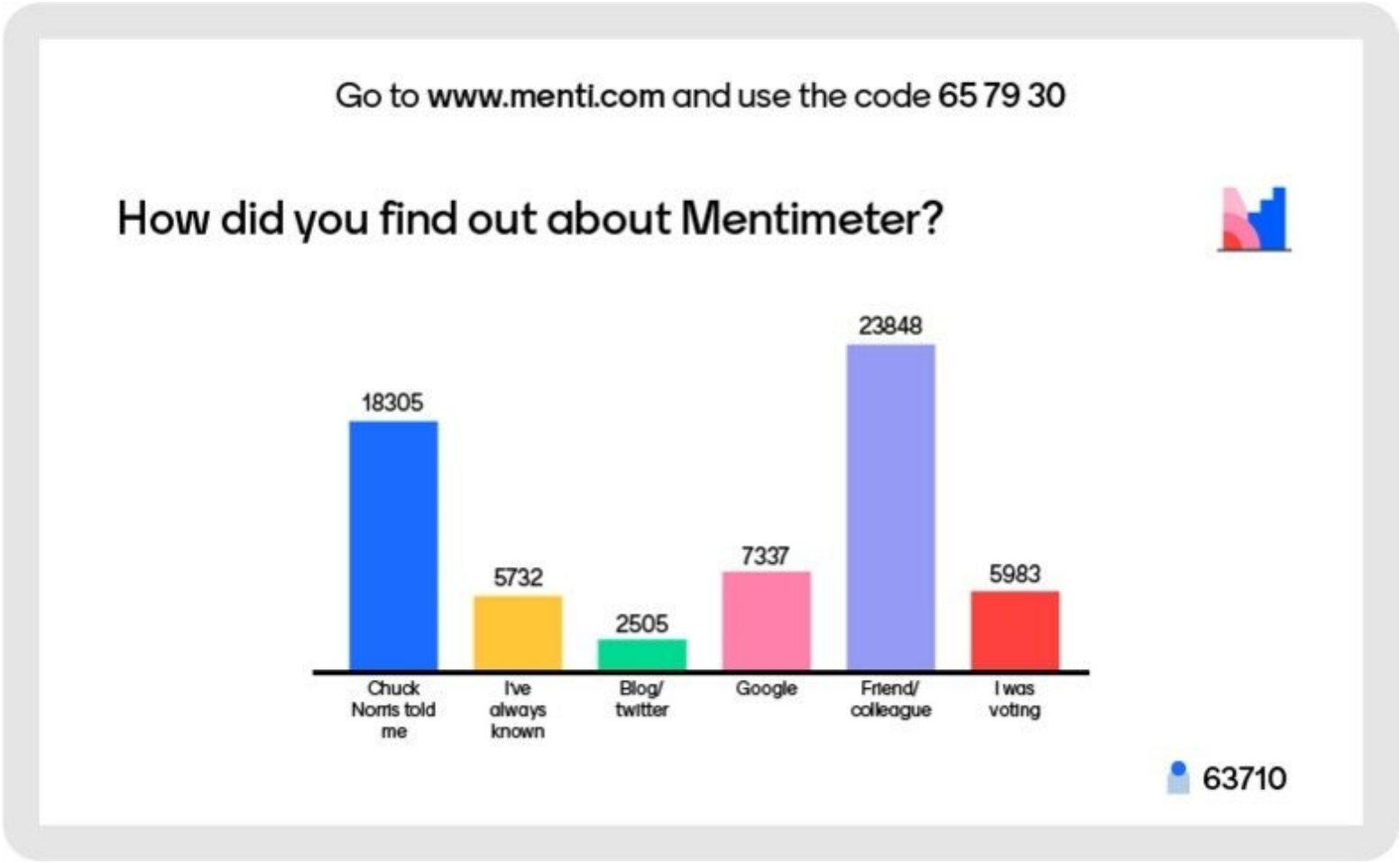
Example of a colleague's approach

'Instead, I have tried a more holistic approach, including video snippets, self-assessment quizzes, games, asynchronous forums, 'try at home' activities and whatever else I can think of that is engaging, relevant, valuable and pedagogically sound. My pre-learning for game theory took the form of an online game and a series of short video snippets, each building up to a self assessment question. There were 6 snippets of 5 mins – cutting down the recorded content from 2 hours (had I just recorded traditional lectures) to a much more manageable 30 minutes, divided into chunks by theme.'

What worked at Bath

- Making sessions as interactive as possible – using chat functions and Mentimeter to gauge students' understanding
- Even if you don't have a full / Departmental licence, it is worth including 2-3 questions in the trial version of Menti
- Mentimeter is very easy for staff and students to learn to use: https://www.mentimeter.com/
- In addition, you can download or export the results to use in later sessions – and re-use or share questions you develop

Multiple choice questions in Menti



Open ended questions in Menti

Go to www.menti.com and use the code 7379 9605

Any questions from last week's lectures?

Could you please explain the theory of integrated self again

so this DCM assumed that correlation = causality?

What kind of differences in autism?

could you please explain Simon Effect with regard to social cognition?

Does anyone else have a headache after that developmental q&a?

Would you say that attention is developed through learning or maturation of the brain? I'm confused

regarding hyper self-bias, do you think this would extend to people with ADHD since they have trouble focusing attention? (i.e. possible damage to the attentional network?)

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Mentimeter word cloud – can be useful when waiting for lectures to start

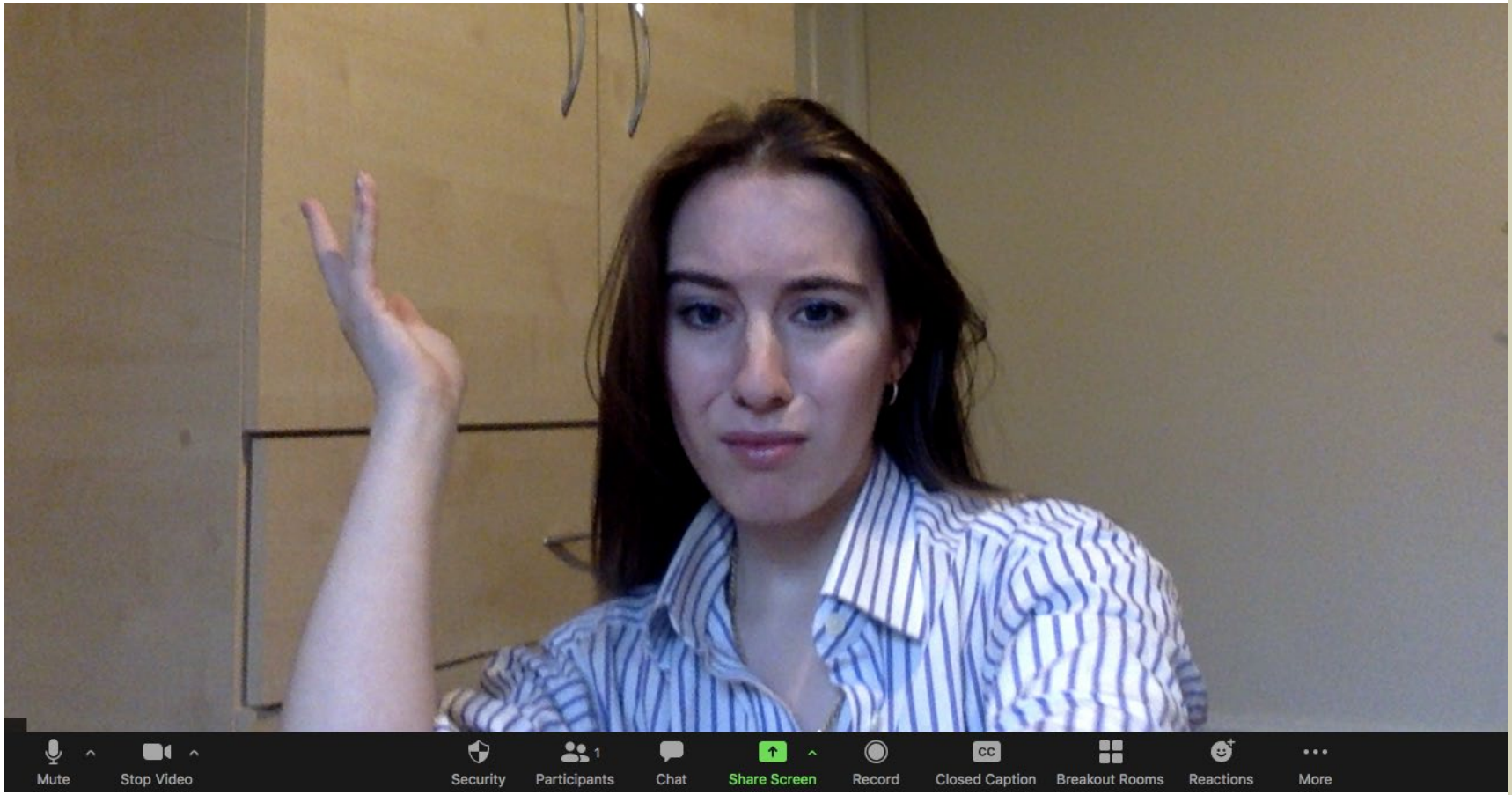
What worked at Bath

- Pre-recorded bitesize (5- or 10-minute) lectures covering basic concepts (e.g., diagnostic criteria for a given disorder)
- Split standard 2-hour lectures into two 1-hour or even four 30 minute lectures to aid concentration and engagement
- Record all lectures and make them available promptly – we use a system called Panopto

What didn't work as well

- Breakout groups in Zoom – especially if aims of sessions are not crystal clear and there is no 'goal' or product. Students consistently stated they hated breakout rooms and in some cases half of the students logged off before they started!
- Students were not willing to appear on camera or voice their opinions on microphone – at least in large (>100) classes
- Unmoderated chat – need to communicate expectations to students that this is not just an opportunity to catch up and questions / comments should be *relevant* to lecture content

Students' opinions of breakout rooms



What didn't work as well

- Long pre-records and 'flipped classroom' approach – to work successfully, students must have prepared in advance and watched pre-recorded lectures (don't be unrealistic)
- Information overload! Hard to deal with polls, chat, raised hands – can be helpful to invite a moderator / teaching asst
- Teaching in-person and online groups simultaneously – this leads to an unsatisfactory experience for both cohorts and is very challenging for the lecturer (better to have 2 separate sessions, half the length)

Breakout groups tips

- If you are still keen to use breakout groups, consider pre-assigning students to groups rather than random allocation – so they get to know each other as module progresses
- Make sure that purpose of breakout group is clear – which questions or topics are they discussing and in which order, and how long do they have?
- Ask students to nominate a group member to feed back to rest of the class and allow them to do this anonymously (e.g., through open field questions in Mentimeter)
- Remember that process of sending them to, and calling them back from, breakout groups takes several minutes so I'd recommend no more than 1-2 breakout groups per hour

Advantages of online learning

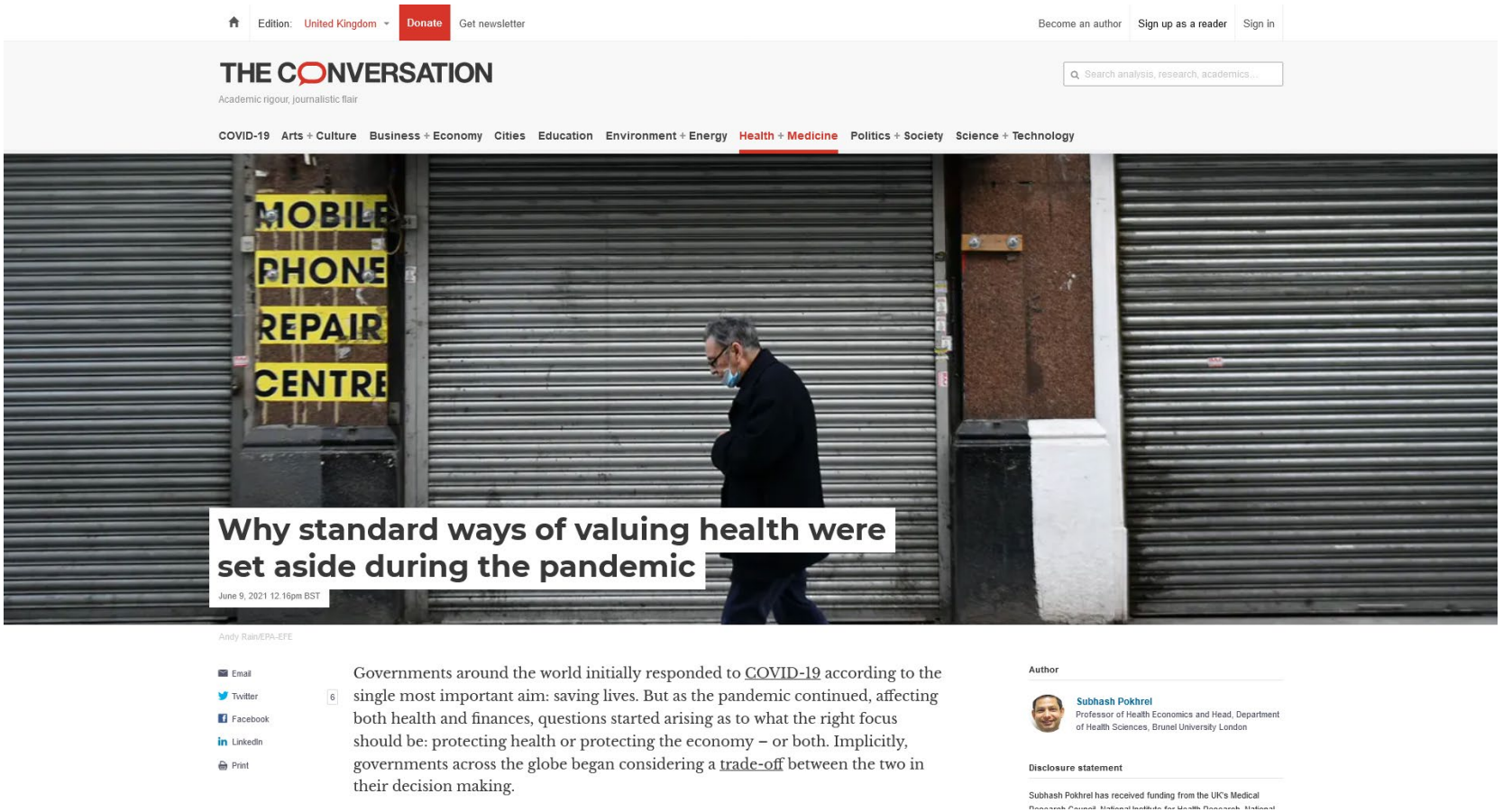
- Allows students to manage their learning and learn at their own pace & in a number of ways (e.g. peer-assisted learning)
- ‘Attendance’ tends to be higher for online lectures and drops off less over semester than in-person lectures – although unclear whether engagement in online lectures is the same
- Flexibility can be beneficial for students based in other time zones or those with work / caring / childcare responsibilities
- Online assessment takes the pressure off students, reduces test anxiety and allows more of them to fulfil their potential - many argue unseen exams are a poor method of assessment
- Initial evidence suggests plagiarism concerns are unfounded

More on creative assessment

High-stakes final assessments – such as written exams, done en masse under timed conditions – are impossible during a pandemic. In addition, they have a negative impact on student wellbeing, are a poor indicator of students' abilities and bear little resemblance to what students will do in work settings after university (or even at postgraduate level)

'Open-book' assessments – such as reports, writing policy briefings or press releases, and recording oral presentations – are an equally valid measure of ability, effort & learning and may also help students develop transferable skills

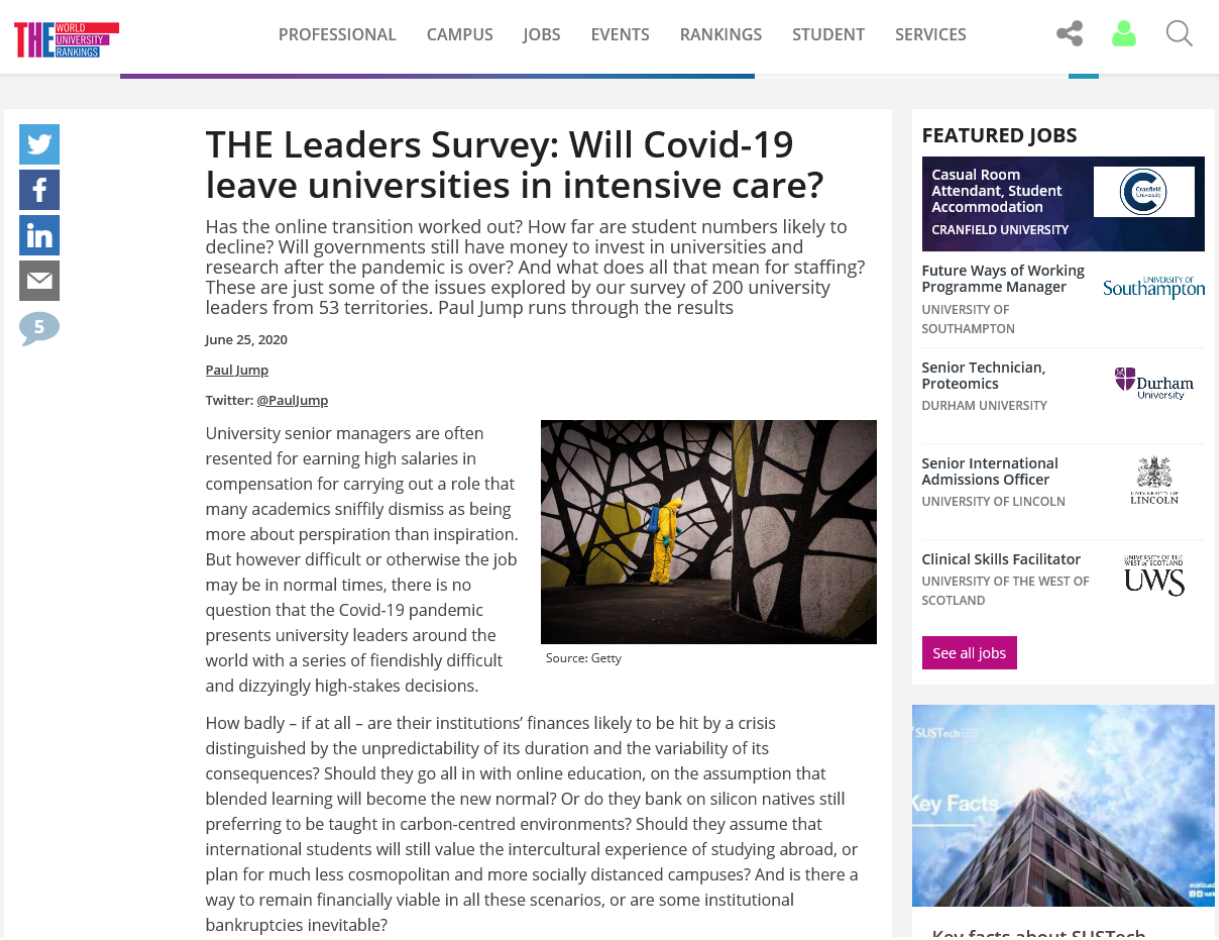
More on creative assessment



Innovative teaching methods

- As well as changing the way in which lectures are delivered and optimising content delivery and format for the online setting, online teaching offers other opportunities
- In our cognitive neuroscience unit, we gave students a link to an online experiment measuring implicit attitudes and asked them to complete it during the lecture – before showing them group-level data from the same task
- Virtual in-vivo dissections to illustrate basic brain anatomy
- Peer-assisted learning where students become the instructor and teach their peers; inviting patients with mental health disorders to talk about their experiences – 'Human Library' – can be easier if they can attend virtually

Implications for the HE sector



'University leaders are united in seeing the coronavirus pandemic as a potentially game-changing event in the modern history of higher education…'

Implications for the HE sector

- Online learning is undoubtedly different from the usual student experience & many commentators have questioned whether students should have to pay full tuition fees
- On the other hand, many students have needed more pastoral support when learning from a distance
- The significant amount of training involved and time spent developing or modifying teaching activities has meant that academic have typically spent more time teaching online than they normally would when teaching in person
- Many academics have found that their balance of research and teaching has been upended as their teaching hours increase. This further increases the costs of online teaching

Implications for the HE sector

- Universities need to think about their spaces, both physical and virtual, to ensure they are capable of flexibility. A key question is what does the modern classroom look like? Institutions need to ask quite radical questions about the future of their estate. Do we need lecture theatres anymore? Should staff offices be reinvented as mini recording studios for creating quality teaching materials? Will this lead to parallel online and in-person streams of degree courses?
- Finally, digital content creation. If more learning and teaching is to happen online, the delivery and associated materials need to meet high standards that students paying £9,000 expect. Staff will need to be supported to grow their own digital skill sets, to embed this in everyday practice.

Further resources

- Articles by Dr Kyungmee Lee on online learning and teaching in the Conversation: https://theconversation.com/coronavirus-14-simple-tips-for-better-online-teaching-133573
- Resources on innovative assessment and feedback: https://www.reading.ac.uk/engageinassessment/eia-home.aspx