Perceptions vs. Reality of Digital Learning in Undergraduate Bioscience Students

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The COVID-19 pandemic saw digital learning methods become the backbone of teaching and learning throughout the 2020/21 academic year. The rapidly changing context necessitated fresh research on student perceptions and experiences.

Methods

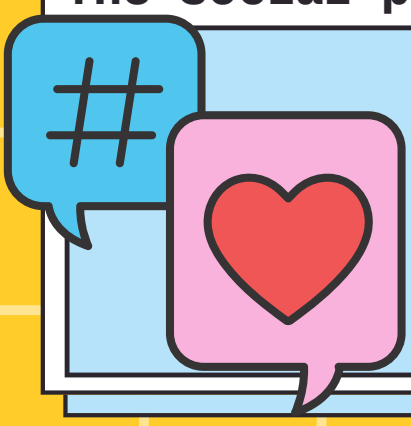
- **Semi-structured interviews were carried out with 13 Level 3 UG students across our bioscience degree pathways.** These students had experienced full academic years of both face-to-face delivery and the Connected Learning model.
- Probes were centred around the students' experiences and perspectives of digital learning and whether their perceptions going in had differed from their final experiences.
- Data was transcribed, coded and thematically analysed (Braun & Clarke, 2006).

Going in was scary...

- Students were **uncertain** and **unprepared**. It was seen to require more independence, discipline, and motivation than they had previously come to expect.
- **There was considerable anxiety over the learning curve for online technologies (Abdous, 2019).** Some thought that it would be **detrimental to their learning**, unable to see how the same amount of content could be covered in the same depth.
- Other students were **optimistic** but this was due to **having past experience of blended learning or remote work**. **Trust in the institution and/or the lecturers made students less anxious**.

*results of start-of-year word association

The social part is very important...



- Peer-to-peer learning was considered at risk, and non-educational **social interaction was considered as important as educational**. The physical presence of the lecturer and other students in the room was deemed to be highly important for maintaining engagement and motivation.
- **Live sessions were preferred to pre-recorded material**, and were considered more engaging. This engagement increased if tools and practices were used to make the session interactive.
- **Students wanted to feel part of a community, and most did, but it was inferior to a face-to-face one (Alenezi, 2022)**.

And the challenges are evident...

- **Engagement was not seen as the student's responsibility**, and was determined by the staff member's ability to make online sessions interactive and to organise learning materials (Zhang et al., 2022).
- **There was a perceived loss of knowledge and employability due to the lack of lab and field skills taught**.
- The flexibility of digital learning eventually **made education take a back seat to other commitments**.

But there were some benefits...

- **Recorded lectures** were key tools for flexibility and revision.
- **Combining synchronous and asynchronous discussion** was considered highly beneficial.
- The ethos of digital learning **made staff seem more approachable and supportive**.

Recommendations

- As an institution, we need to **clearly define our responsibilities around providing social experiences** to students.
- At local levels, **expectations of student behaviour and commitment need to be made more explicit**, particularly at key transition points.
- For individual lecturers, **knowledge and skills sets around facilitating interactive, peer-to-peer learning** is a key development priority.