

# Delivering online learning in the time of COVID-19

Evidence Briefing

*Prepared by Austin Health Sciences Library*



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## Evidence Briefing

### Background

Prior to COVID-19, several departments and teams within Austin Health would deliver education sessions in person or multi-modally (read/write, kinesthetics, visual, audio) to carers and/or healthcare professionals. In the current pandemic environment, these activities have not been able to continue in the same format.

### Question

What would be considered best practice for delivering creative and engaging online education sessions, using meeting style technologies or video-based learning, in the time of COVID-19 and social distancing?

### Communication Elements

- **Interaction:** how learners interact with both educators and each other in online learning environments
- **Visual cues:** how is communication/learning affected by an inability to see or read the learner's body language?
- **Moderating:** are moderated sessions more effective?
- **Attention to message & learner fatigue:** is there a new limit on our ability to attend, or the amount of effort required, when using online technology (e.g. Zoom webinars)?
- **Keeping it interesting:**
  - How do single presenters compare to two presenters?
  - Would a split screen be possible/helpful?

### Key overview

#### Virtual conferences, a guide to best practices

[ACM Presidential Task Force on What Conferences Can Do to Replace Face to Face Meetings 2020](#)

Key points:

- **2.1 Organising** – virtual conferences require as much planning and behind-the-scenes real-time logistics as physical conferences. Task may be slightly different but the key to any good event is planning, hosting and preparation.
- **2.5 Carving out mental space** – a decision for organisers is will the audience respond better to intense sessions with 'real-time' participation or instead to spread synchronous events out over more days to make it easier to combine attendance with daily life.

- **2.8 Dealing with disruption** – large gatherings that are advertised publicly can be vulnerable to trolling and other cyber-attacks. Technology needs to be selected with security in mind, ability to use “mute all” and “blocking participants” essential.  
Worth establishing a “security officer” – have a dedicated IT person
- **4.2.2 Virtual conference checklist**
- **5. Fostering social interactions** – the social/networking elements of a conference/meeting can be lost in virtual environment. A list of ideas is provided – playing live music, virtual drinks, live yoga sessions ...
- **6. Other resources** – wide variety of useful links to browse

## Interaction

### Maximizing virtual meetings and conferences: a review of best practices

[International Orthopaedics](#) 2020 May 23:1-6

Authors have designed **Virtual Meetings Best Practices** in response to the current pandemic. A checklist for planning virtual conferences is in [Appendix 1](#).

The guidelines outline four phases of the meeting cycle (PrePARE) and provide recommendations for each:

- Pre-planning considerations
- Planning
- Accomplishing conference goals
- Response and Engaging the target audience

### Practical approaches to pedagogically rich online tutorials in health professions education

[Rural and Remote Health](#) 2020; 20(2): 6045

“Sessions designed to promote case-based, team-based or problem-based learning can all be successfully conducted online if designed to maximise social constructions of meaning, and facilitated by tutors who are equipped for this task and familiar with the technological affordances.”

Recommend:

- Establish clear core learning objective
- Avoid text-heavy slides & minimize use of slides to increase time available for learners to see peers and tutors
- Use images and animation
- Consider subgroups and virtual breakout rooms

### Structuring and scaffolding the online course

[International Journal of Online Graduate Education](#) 2020; 3(1): 1–16.

Aimed at higher education settings, the authors outline a framework of three components:

- Scaffolding – to provide explicit expectations and sequences
- Collaboration - opportunities for learners to work together
- Reflection – providing the opportunity to think about the learning process

### **Spotlight: what works in online/distance teaching and learning?**

[Australian Institute for Teaching and School Leadership \(AITSL\)](#) 2020

Although primarily aimed at school educators, this document has an evidence-based section on *Principles for quality online/distance teaching*. Authors note “within the field of distance education there are three forms of interaction widely recognised as crucial to program development and delivery – student-content, student-student, student-teacher”

### **COVID-19 and educational engagement**

[Journal of Oral and Maxillofacial Surgery](#) 2020; 78(7): 1049–1051

Perspective article discussing what educational engagement looks like. Authors recommend Zoom technology, stating “measurable outcomes of educational engagement such as goal setting, recording of deeper information, feedback, self-regulation, and help seeking by residents are capable of being assessed in a Zoom meeting.”

## Visual cues

### **Coronavirus: 14 simple tips for better online teaching**

[The Conversation](#) March 2020

“Research has shown that lecture videos that show instructors’ faces are more effective than simple narrated slideshows. Intersperse your slides with video of yourself.”

### **Web-based conferencing: what radiology educators need to know**

[Academic Radiology](#) 2020; 27(3): 447-454

Provides practical advice from Radiology educators on how to be a successful webinar host; noting that many participants attend webinars on mobile devices, therefore “prepare the slides with large font text and similarly large images ... Plan to incorporate an interactive component if possible and include personal anecdotes to engage the audience.”

## Moderating

### **Holding a conference online and live due to COVID-19**

[arXiv preprint arXiv:2004.07668](#).

Authors started with only a Zoom host and no session chair – however, quickly found that a single host is rather busy with running the session, playing the videos, and monitoring the chat.

As the event progressed, session chairs were introduced to manage discussions while a separate Zoom host was technically managing the Zoom session, and this was felt to be successful.

## Attention / Learner fatigue

### Holding a conference online and live due to COVID-19

[arXiv preprint arXiv:2004.07668](#).

“As far as we know, we are one of the first conferences that moved to a fully synchronous online experience due to the COVID-19 outbreak. With fully synchronous, we mean that participants jointly listened to presentations, had live Q&A, and attended other live events associated with the conference. In this report, we share our decisions, experiences, and lessons learned.”

- Recommend halving the length of presentations: 10-12mins compared to 20-25mins for face-to-face conferences.

### Webinars in higher education and professional training: A meta-analysis and systematic review of randomized controlled trials

[Educational Research Review](#) 2019; 28: 100293

“Interestingly, and contrary to our assumptions, repeated webinar events were not more effective than single webinar events. The presented evidence did not inform about an ‘optimal’ webinar length”. However, the authors found that longer webinar durations were positively associated with more knowledge and skills. This review also concluded that webinars are only “trivially more effective” in promoting student achievement than other learning environments.

## Keeping it interesting

### Five tips for moving teaching online as COVID-19 takes hold

[Nature](#) 2020; 580: 295-296

Provides tips for pivoting to online instruction; notes that it takes the teacher “at least three times as much work as a traditional lecture, and that’s once you’re familiar with the tools”. Recommends asking precise questions and seeking feedback.

Related resource: **Getting started: best practice for establishing online learning**

[Tertiary Education Quality and Standards Agency \(TEQSA\)](#) (2020)

Provides extensive list of resources to get started including guides, videos, webinars, articles and blogs, as well as some online programs.

### **COVID-19: Strategies for online engagement of remote learners**

[F1000Research](#) 2020; 9(246)

Use of interactive smart tools – Zayapragassaraza suggests:

- Zoom can be made more interactive by dividing the whole group into sub-groups and asking each subgroup to consider a different set of Q&A to present back;
- Quizzes (VoxVote) or opinion polls or multiple-choice questions (MCQ) such as TESTMOZ can break up the sessions
- YouTube video - 'watch and learn' then ask learners to provide comments around their understanding of the topic and/or post a query via an online chat platform.

### **Interprofessional education and practice guide No. 10: Developing, supporting and sustaining a team of facilitators in online interprofessional education**

[Journal of Interprofessional Care](#) 2020; 34(1): 4-10

Draws on the Deakin University leadership experience in supporting teams of online interprofessional education facilitators over the last decade.

Discuss value of both co-facilitation and peer-facilitation models to enable collaborative online interprofessional learning.

### **Cardiothoracic education in the time of COVID-19: how I teach it**

[The Annals of Thoracic Surgery](#) 2020

“Because we thought a large group discussion could be cumbersome on the digital platform, the structure of this meeting has changed from topic-driven PowerPoint presentations to more accurately simulated “mock oral” engagements on one cardiac/congenital and one thoracic topic weekly”

## Additional reading

### Guidance on flexible learning during campus closures: ensuring course quality of higher education in COVID-19 outbreak









[Beijing: Smart Learning Institute of Beijing Normal University](#) 2020

Large 100-page document aimed at the tertiary sector in Singapore.

Addresses the following broad areas: planning flexible learning; choosing appropriate delivery methods; preparing materials and tools; facilitating flexible learning with diverse activities; checking learning outcomes

“The implications of the study's findings can inform school teachers, lecturers, trainers, technologists, and theorists interested in the computer-supported design, implementation, delivery, tutoring, and assessment of webinar-based learning environments.”

### Moving ideas without moving people: how to e-conference at the university of Alberta

One of the key motivations for attending conferences is to network and build career potentials. How can we recreate these benefits in an online environment?	
Incorporate collaborative online activities, such as writing a Wiki or website. These activities can be organized as preparatory work, or they can take place during the event and continue afterward.	 Google Sites  MediaWiki
Make intentional use of the comments section on a livestream. Have a facilitator manage the discussion, giving viewers the opportunity to demonstrate their engagement with the topic and to network with panelist and other viewers.	 YouTube Live  Twitter  Adobe Connect
Use a collaboration or social networking tool that enables conference participants to craft their profile. This allows participants to present themselves professionally and to connect their career persona to the online discussion.	 Google+  Slack  Meetup

<https://aroundtheworld.ualberta.ca/wp-content/uploads/2018/05/E-Conferencing-Toolkit.pdf>

### Tools for conferences

Provides a table of comparative features of virtual conference tools – Zoom and MS Teams are listed. Ability to record and then archive is worth considering

[Tools for virtual conferences - Google Docs](#)

[1-click PubMed search](#) – provides live search of the COVID-19 literature in PubMed that also mentions online learning, video-based learning, Zoom or webinars.

[ERIC database \(Institute of Education Sciences\) search](#) for “online learning AND COVID”

[Google Scholar search](#) for (video OR online) AND (conferencing OR education) AND best practice