

Lessons learned from Virtual Teaching during Covid-19

May 2021



Developing people
for health and
healthcare

www.hee.nhs.uk

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Speaker

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Context

The pandemic has prompted **changes** across the whole of the education sphere.

Sharing experiences and research is vital. We are all “**finding our feet**” and adopting to a new and evolving environment.



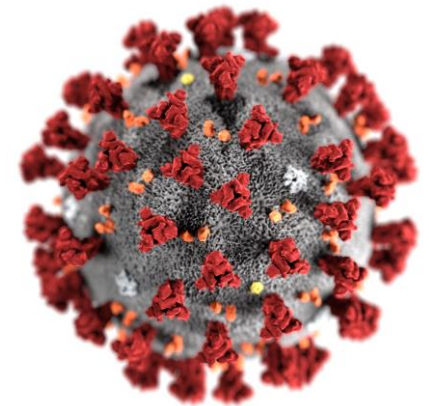
Introduction

- Health Education England's (HEE) **Technology Enhanced Learning (TEL) team** conducted a rapid scoping exercise concerning the shift to remote teaching facilities online learning.
- We will use some of their findings and a range of academic publications to explore this topic today.



Introduction

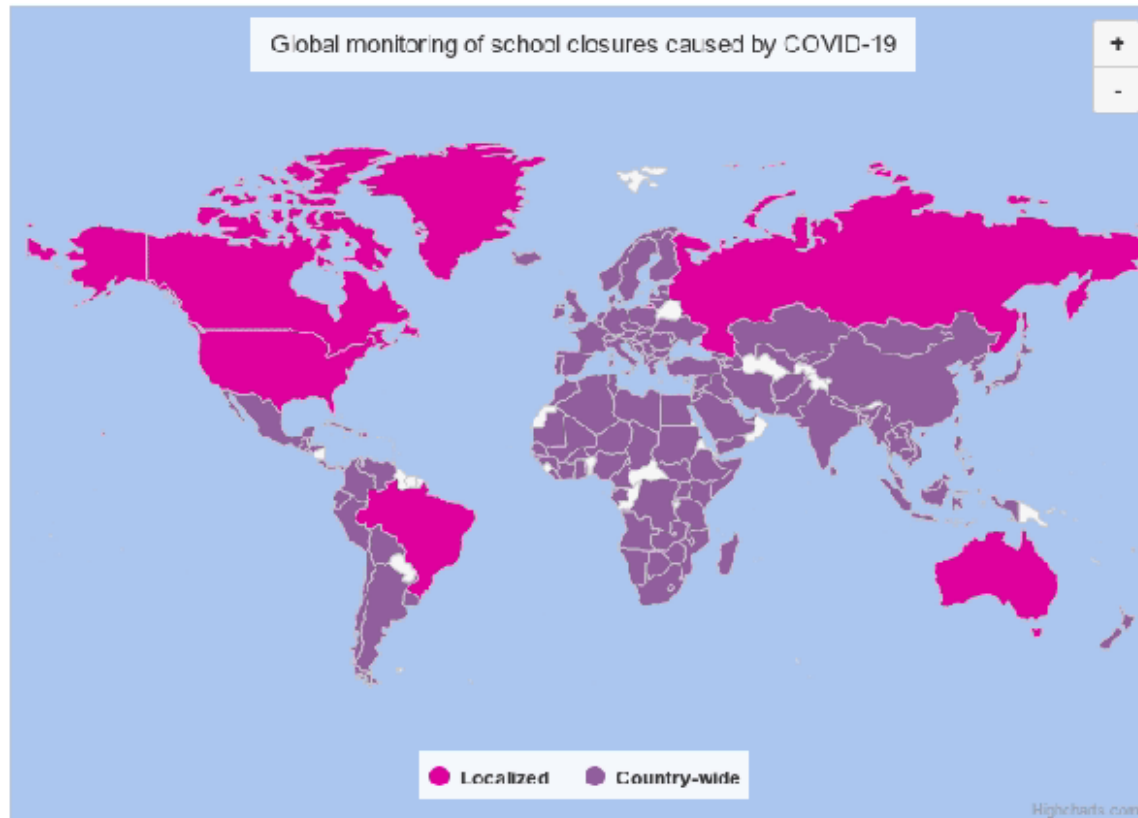
Covid-19 has impacted more than 1.7 billion students, across 188 countries, representing over 91% of all learners*.



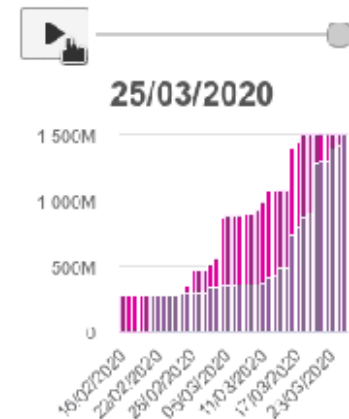
The impact of Covid-19 has increased the need to **adapt training delivery** at pace to enable professional development to continue.

* OECD Policy Responses to Coronavirus (COVID-19): Education and COVID-19: Focusing on the long-term impact of school closures 29 June 2020

Now the world has changed...



Visualize evolution over time.



1,523,006,628 affected learners
87% of total enrolled learners
165 country-wide closures



Pre COVID 19

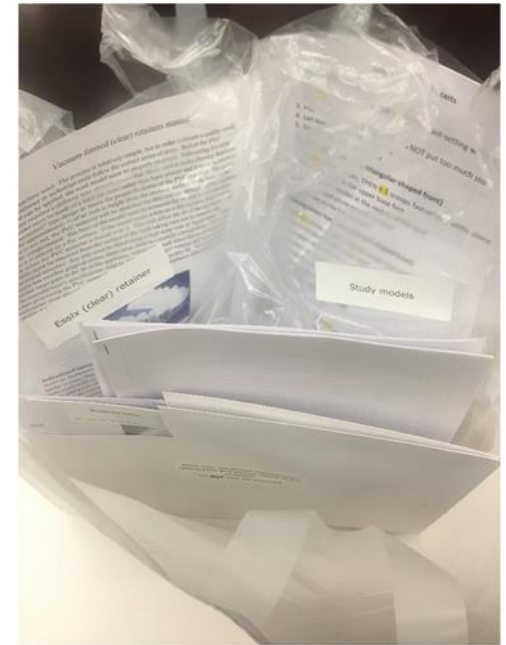
Prior to COVID 19 most people said that they had hoped to move some or more training activity online but barriers included:

- Time
- Budget
- Lack of Hardware
- Technical support
- Attitudes ('always done this way' / 'less engaging')

Beware: These barriers still exist to a greater or lesser extent

Strategies Identified

- Tutors produced / recorded material to be **shared electronically** (or signposting to existing platforms / content)
- Teaching converted to webinars to allow training to continue. Plus there are some options for **practical training*** – DFT (Midlands & East).



*Creating predoctoral orthodontic laboratory online modules and a complete course kit in response to COVID-19 Ahmad Abdelkarim DMD, PhD, EdD
First published: 04 August 2020 <https://doi.org/10.1002/jdd.12359>

Synchronous vs Asynchronous

- “viewer **retention was poor** during webinar playback compared to the very high attendee retention during live webinars”*

*Transforming postgraduate medical education during the COVID-19 pandemic: creating a trainee-led virtual teaching platform

Author(s): Collins, Emma; Ahmad, Aminah; May, Hannah; Price, Kathryn; Egbase, Elizabeth; Mathews, Catherine

Source: Future healthcare journal; Mar 2021; vol. 8 (no. 1); p. e7

Publication Date: Mar 2021

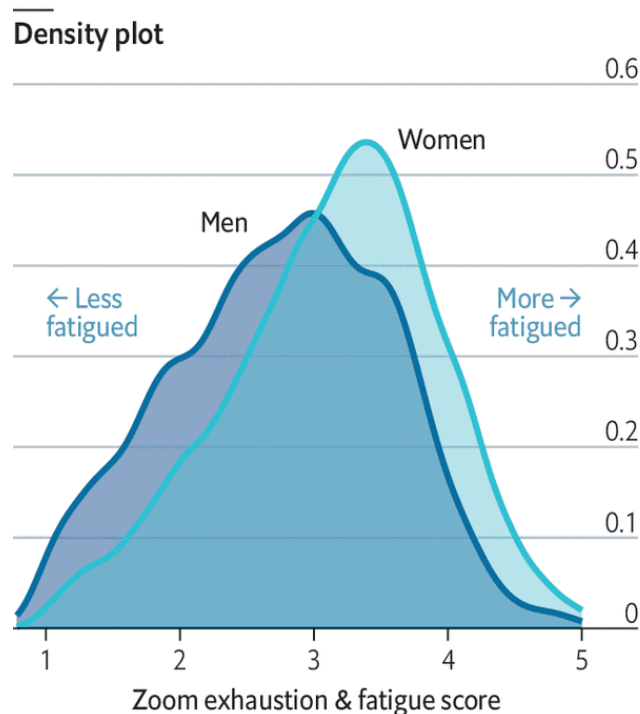
Poll

- Do you think men find virtual meetings more tiring than women?
- Yes
- No

“Zoom Fatigue”

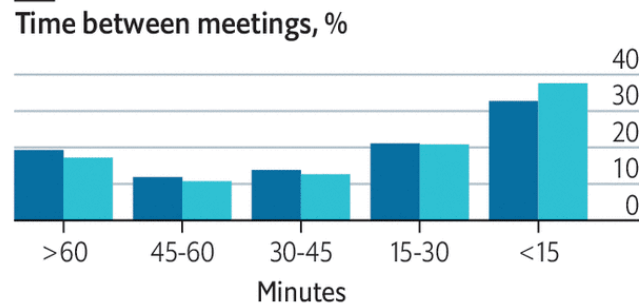
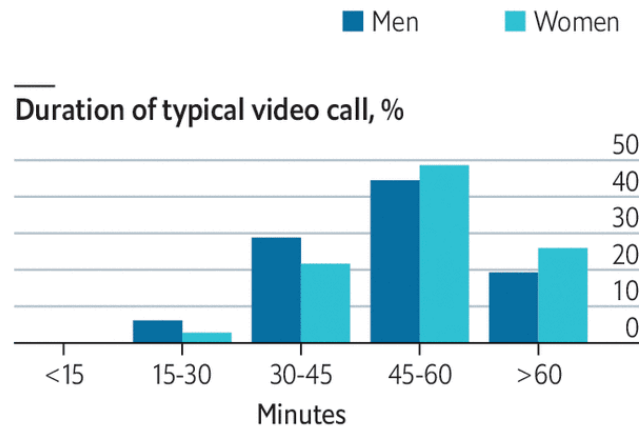
Zoom and gloom

Videoconferencing habits by sex*



Source: “Nonverbal mechanisms predict zoom fatigue and explain why women experience higher levels than men”, by G. Fauville, M. Luo, A. Queiroz, J. Bailenson, & J. Hancock

The Economist



*Survey of 10,332 people conducted February 22nd to March 12th 2021

“Zoom Fatigue”

- Having to stay within the camera’s gaze leaves **limbs stiff and backs sore**.
- Looking at your own face on screen can be bad for **self-esteem**.
- Trying to communicate without all the usual visual cues (not least because of time-lags) adds to the **“cognitive load”** for already stressed-out employees.

Access

- Finally, this **meta-analytic review*** shows that webinars and face-to-face classroom teaching are **comparable** in their effectiveness to promote student learning...
- Webinars offer higher levels of **flexibility** for the learners...

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

- Authors: Andreas Gegenfurtner & Christian Ebner
- Educational Research Review
- Received 6 November 2018, Revised 17 September 2019, Accepted 30 September 2019, Available online 7 October 2019.

Strategies Identified

As with all tools there is a learning curve and limits to the possible outcomes.

For more **interactive sessions** you may need to consider:

- **Smaller** learner groups
- **Greater** educator presence



Risks

- The impetus to provide a rapid adaptation to online learning could result in a “**Wild West**” situation.
- **Guidance**, sharing & standardisation will help prevent this from occurring.



Risk mitigation

- HEE in the Midlands & East have produced formal:
- **Speaker Guidance for Virtual Courses**
- This supports our education providers and helps provide a consistent offering to learners.

Before we start

**This course is for your personal learning and development.
The content **MUST NOT** be shared with others via any
medium including social media**

- Participants will not audio or video record online sessions. Photos of Slides may be taken only with the Presenters' consent.
- As a default, webcams should be switched on, but the microphone should be muted.
- The speaker will describe how to ask a question and the process for interaction during the session.

Slide to be used by all online
providers of DWD

Benefits Identified

- Training involving a whole day (as trainees had travelled, been released for full day) – now **shorter sessions** can provide similar content
- Better **engagement and attendance** at meetings held online as people don't have to travel*

* [Gegenfurtner et al., 2018](#)

Warning: Service Delivery

- Some Trusts have highlighted that it is easier to construct an efficient **rota** if Trainees have longer blocks of training (i.e. whole days).
- The ability to offer short learning events in a flexible fashion may suit Trainees, but not **service delivery**.

Benefits Identified

- **ARCPs** and **interviews** have been held online which has worked well and saved time and cost.
- Standard training could be delivered to much **larger groups nationally** in one session. Potential to standardise training material used (Foundation Training).



Common Findings

It may be too early to draw concrete conclusions – but there are some common findings to explore:

- **Less face to face** in the future.
- This has **benefits** in terms of travelling time and cost.
- Many trainees are finding it increasingly difficult to **attend** study days off site.

Common Findings

It may be too early to draw concrete conclusions – but there are some common findings to explore:

- **Increased use of online tools.** We must not go back to face-to-face unless it is demonstrably more effective. Trainees are used to flexible delivery from undergraduate education.
- Online training will give trainees the power to take **control** of their own training.

Common Findings

- Some activities (practical training / assessment of practical skills) are suited to **face to face** environment. A **blended learning approach** is required.
- **Shared platform** will promote collaboration across schools and regions. The best resources/practices should be shared.

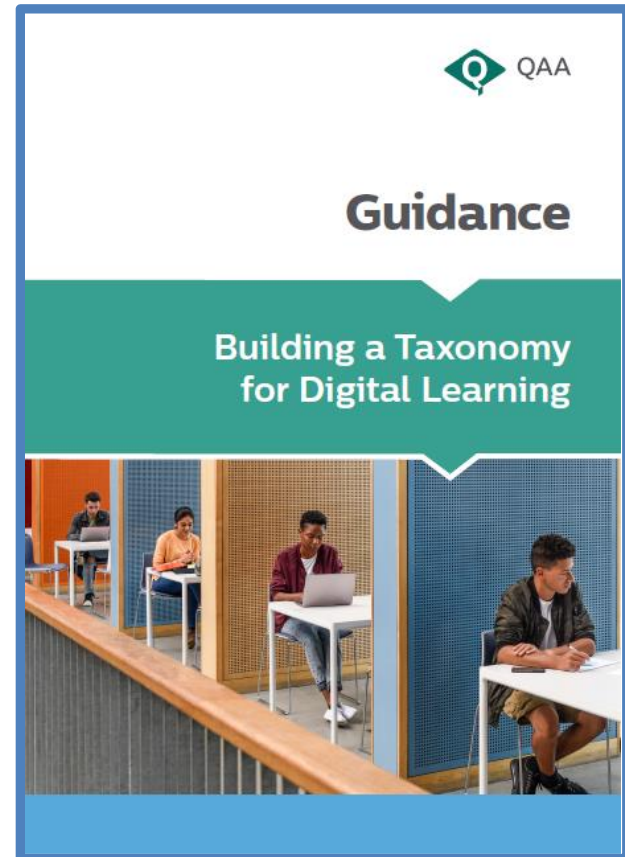
Figure 10 **Interoperability of video conferencing tools used by government organisations, 1 May and 15 July 2020**

Organisation	1 May							15 July						
	Default	Google Meet	MS Teams	Cisco Webex	Zoom	Skype	BlueJeans	Default (where new)	Google Meet	MS Teams	Cisco Webex	Zoom	Skype	BlueJeans
BEIS	MS Teams													
CO	Google Meet													
DCMS	Google Meet													
DfID	MS Teams													
DHSC	Skype													
DIT	MS Teams													
Defra	MS Teams													
DfE	MS Teams													
DfT	MS Teams													
DWP	Skype													
FCO	MS Teams													
GDS (CO)	Google Meet													
GSS (CO)	Google Meet													
HMRC	MS Teams													
HMT	MS Teams													
HO	Skype													
MHCLG	MS Teams													
MoD	Skype													
MoJ	MS Teams													
No 10	MS Teams													
NICS	Cisco Webex													
ONS														
Parliament Digital	MS Teams													
PHE	Skype													
Scot Gov	Vscene													
Wal Gov	MS Teams													

Can use	Restricted	Cannot use	Unknown
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Are we talking about the same thing?

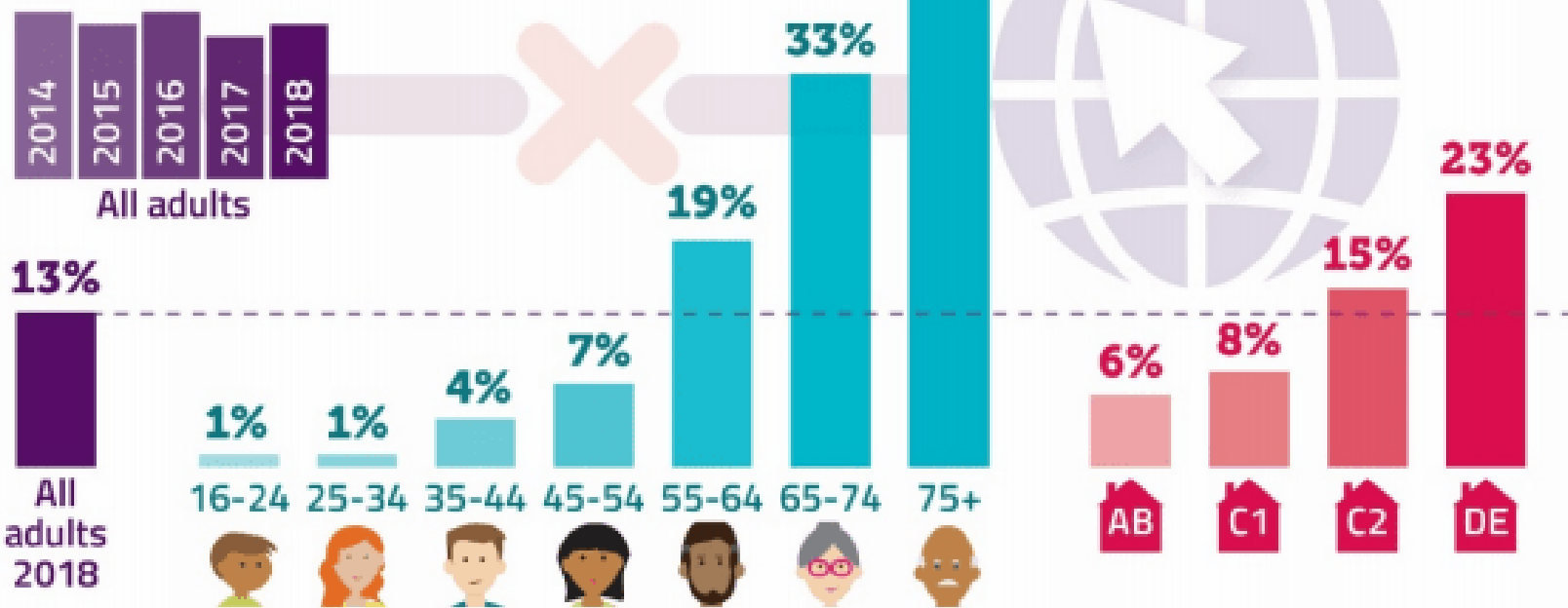
- **The Quality Assurance Agency for Higher Education**
- <https://www.qaa.ac.uk/docs/qaa/guidance/building-a-taxonomy-for-digital-learning.pdf>



Common Findings

- **Teams** now has Breakout Rooms. Teams will be the preferred option for most NHS organisations. Zoom will continue in use in some environments.
- We must consider ability to **access** hardware and general inclusivity – **digital divide/digital exclusion**.

The proportion of non-users of the internet is unchanged since 2014; older people and those in the DE socio-economic group remain less likely to be online



Dental Foundation Training

- Midlands & East rapidly embraced a specific and long-term **response** to the pandemic challenges.
- The goal was to utilise the **acceleration of change**, and control the outcome.

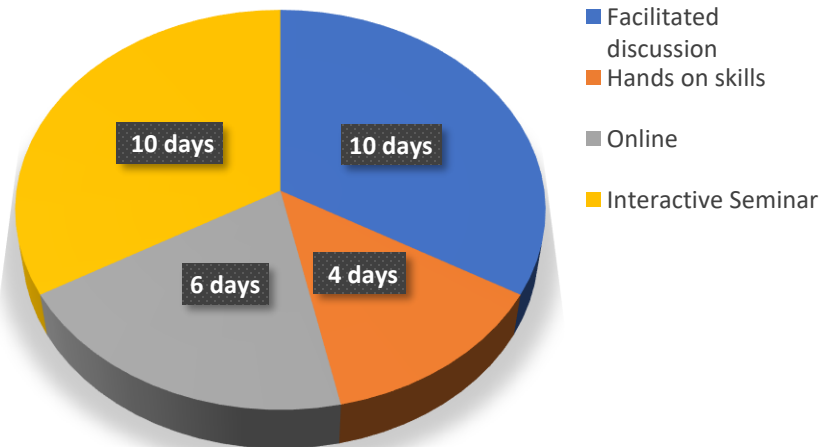
Flipped Classroom

- In **flipped classrooms** (inverted classrooms) students review lecture materials before the session.
- In-class time is dedicated to discussions, interactive exercises, and independent work that would have previously been **completed at home**.
- Virtual tools can **facilitate this delivery**.

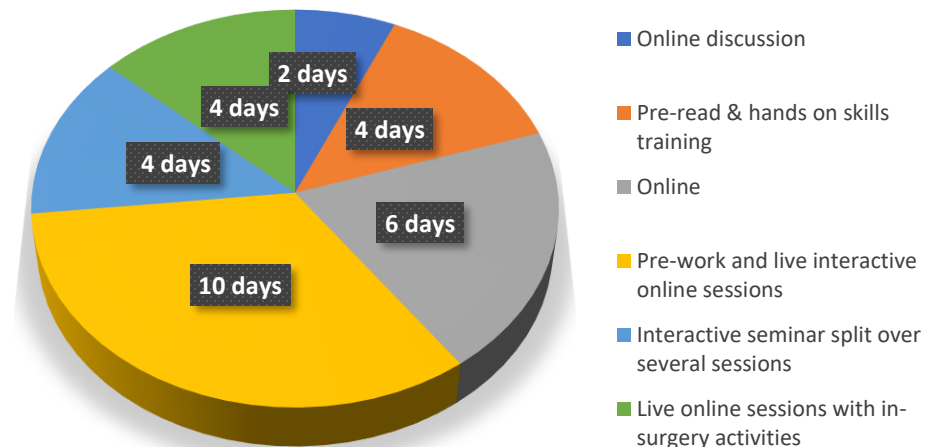
Delivering Better Education – Our Proposed Post-Covid Learning Model

Our proposed programme of Study Days will still equate to c10% of the total learning time for the year

Current Study Day Programme



Proposed Study Day Programme



Delivering Better Education – Our Future Model

Pre-read & Hands-on Skills

- Clinical Skills Refresher
- Oral Surgery
- Restorative
- Endodontics

Online (self-study)

- eLearning for Health (3 days)
- SCRIPT – safe prescriber (1 day)
- E-lift project (2 days)
- BDA Oral Cancer Guide

Online Discussion

- Regional Induction
- Scheme Induction

Pre-Work & Interactive Sessions

- Behavioral Change
- Communication
- Treatment Planning
- Periodontics
- Public Health Day
- Health & Safety
- Medicolegal
- Oral Cancer
- Anxiety & Pain Management
- Finance / Contracts

Interactive Seminar over Several Sessions*

- Milestones 1, 2 & 3
- Audit

** Where FDs present a case and / or an audit*

Live Online Session with In-Surgery Activity

- Prosthetics
- Occlusion & Toothwear
- Paediatrics
- Teamwork & Human Factors

A positive outcome?

- Despite the disruption of the pandemic, trainees have **continued to learn**.
- They have also accelerated their attainment of the types of **competencies** that 21st-century physicians must master.

Finally...and most importantly?

Well being

- “In addition, it has allowed us to continue to foster a sense of **community** that we hope can attenuate trainee burnout and promote wellness in a time when isolation has become a part of everyday life.”*

* [J Am Coll Cardiol](#). 2020 May 26; 75(20): 2635–2638.

Published online 2020 Apr 15. doi: [10.1016/j.jacc.2020.04.015](https://doi.org/10.1016/j.jacc.2020.04.015)

Virtual Learning During the COVID-19 Pandemic: A Disruptive Technology in Graduate Medical Education

- [Zaid I. Almarzooq](#), MBBCh,* [Mathew Lopes](#), MD, and [Ajar Kochar](#), MD

Useful research

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Useful research

The Transformational Effects of COVID-19 on Medical Education

- [Catherine R. Lucey, MD¹](#); [S. Claiborne Johnston, MD, PhD²](#)
- [Author Affiliations](#) [Article Information](#)
- JAMA. Published online August 26, 2020. doi:10.1001/jama.2020.14136

Real-time measurement for effectiveness of novel educational endeavors during the COVID-19 pandemic

- [Kimberly K. Patterson DDS MS](#); [Priyanshi Ritwik DDS MS](#); [Carolyn A. Kerins DDS PhD](#); [Abimbola Adewumi BDS FDSRCS\(Eng\)](#)
- First published: 04 August 2020 <https://doi.org/10.1002/jdd.12363>

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Thank You