Emergency remote education during the COVID-19 pandemic

Developing rapid reviews to synthesise teaching and learning experiences

Dr Melissa Bond
melissa.bond@unisa.edu.au
@misc_nerd
I would like to acknowledge the Traditional Custodians of the land on which I am presenting, and pay my respects to Elders past, present and emerging.

I respectfully acknowledge the Kaurna, Boandik and Barngarla First Nations Peoples and their Elders past and present, who are the First Nations’ Traditional Owners of the lands that are now home to the University of South Australia’s campuses in Adelaide, Mount Gambier and Whyalla. I am honoured to recognise our connection to the Kaurna, the Boandik and the Barngarla lands, and their history, culture and spirituality through these locations. I also acknowledge the other First Nations of lands across Australia, their Elders, ancestors, cultures and heritage.
Agenda

1. Presenter background
2. What are systematic reviews? What are rapid reviews?
3. Emergency remote education in schools: a rapid review
4. ERE: A focus on secondary schools
5. ERE in higher education
6. Lessons learned
7. Further resources
8. Q&A
Dr Melissa Bond

- Former high school teacher in South Australia (10 years)
  - Masters dissertation: ‘Student perceptions towards studying German in South Australia at two crucial transition points in secondary schooling’

- Research Associate (3 years, CvO Universität Oldenburg)
  - PhD, 2020: ‘Facilitating student engagement through educational technology: Current research, practices and perspectives’

- EPPI-Reviewer Support Officer (Feb 2020 onwards)

- Lecturer (Digital Technology Education), University of South Australia (Nov 2021 onwards)

- Systematic & mapping reviews
Evidence synthesis

Published reviews
- Student engagement and educational technology in higher education
- Student engagement and the flipped learning approach (K-12)
- Artificial Intelligence in Higher Education
- Systematic Reviews in Educational Research (co editor)
- COVID-19 studies on teaching and learning in K-12 (rapid review)
- COVID-19 studies on teaching and learning in higher education
- Teaching and learning in secondary schools during COVID-19

Current reviews
- Language bias in educational technology research synthesis
- Learning analytics and student engagement
- Doctoral education and motherhood
- International research collaboration in educational research
Systematic Review Methodology

- “Rather than looking at any study in isolation, we need to look at the body of evidence”¹

- “a review of research literature using systematic and explicit, accountable methods”²
  - Transparent and explicit
  - Replicable and updatable
  - Identify gaps, contradictions or (in)consistencies

¹ Nordenbo (2009, p. 22)
² Gough, Oliver, & Thomas (2012, p. 2)

Collins, Coughlin, Miller, & Kirk (2015, p. 1)
Systematic Review Process

- Review question and conceptual framework
- Search strategy: search string and selection criteria
- Study screening
  - Title & Abstract
- Study retrieval
- Screen on full text
- Data Extraction
- Quality assessment
- Synthesis
- Report

Retrieved from YourHealthNet:
Systematic Review Methodology

Benefits
- Search and retrieval skills
- Exposure to many research & writing styles
- Broad understanding of a topic
- Identification of research gaps

Challenges
- Understanding of method
- Software
- Scope and retrieval
- Resources (time and people)
Systematic Review Methodology

- average of 67 (SD = 31) weeks to conduct and publish a review
- reviews that reported funding took longer (42 vs 26 weeks) and involved more team members (6.8 vs 4.8 people) than reviews that reported no funding
- final average yield rate below 3%

Borah et al. (2017, p. 4), N=195
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Topic</strong></td>
<td>conceptualization and measurement of student</td>
<td>student engagement and educational technology</td>
<td>flipped and video-based learning in various</td>
<td>social goals and academic</td>
<td>AI in higher education</td>
</tr>
<tr>
<td></td>
<td>engagement in higher education</td>
<td>in higher education</td>
<td>subject areas in higher education</td>
<td>success</td>
<td></td>
</tr>
<tr>
<td><strong>Duration</strong></td>
<td>18 months</td>
<td>24 months</td>
<td>1 – 4 months</td>
<td>11 months</td>
<td>9 months</td>
</tr>
<tr>
<td><strong>No of team members</strong></td>
<td>4 authors, 1 research assistant</td>
<td>5 authors, 2 research assistants</td>
<td>1 – 3 authors</td>
<td>2 authors</td>
<td>3 authors, 1 research assistant</td>
</tr>
<tr>
<td><strong>Initial references</strong></td>
<td>4,192</td>
<td>77,508</td>
<td>936 – 4,053</td>
<td>2,270</td>
<td>2,656</td>
</tr>
<tr>
<td><strong>Final references</strong></td>
<td>186</td>
<td>243</td>
<td>5 – 61</td>
<td>26</td>
<td>146</td>
</tr>
<tr>
<td><strong>Yield rate</strong></td>
<td>4.44 %</td>
<td>0.31 %</td>
<td>0.05 – 1.51 %</td>
<td>1.14 %</td>
<td>5.50 %</td>
</tr>
<tr>
<td><strong>Databases searched</strong></td>
<td>PsycINFO, ERIC, Education Source, and Academic</td>
<td>ERIC, Web of Science, PsycINFO, and SCOPUS</td>
<td>Academic Search Complete, TOC Premier, and</td>
<td>Web of Science Core Collection,</td>
<td>EBSCO Education Source, Web of Science, and Scopus</td>
</tr>
<tr>
<td></td>
<td>Search Complete were accessed via Ebscohost,</td>
<td></td>
<td>ERIC, PubMed, PsycINFO, CINAHL Plus, and</td>
<td>Scopus, and PsychINFO</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scopus, Web of Science</td>
<td></td>
<td>British Nursing Index</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Zawacki-Richter at al. (2020)
Emergency remote education during the COVID-19 pandemic

• Abrupt switch to emergency remote teaching.
• Research gaps, especially within vulnerable populations and the role of parents.
• Many teachers and educators were looking to explore how other countries had reacted.
  ➢ However, lack of time plus added stress.
• Early attempts to collate information.
• Evidence synthesis needed for policy and practice.
Rapid Review Methodology

“A rapid review is a form of knowledge synthesis that **accelerates** the process of conducting a traditional systematic review through **streamlining or omitting** specific methods to produce evidence for stakeholders in a **resource-efficient** manner.”

- Limiting search to published literature
- Only searching one database
- Using automation (machine learning)
- Limiting inclusion criteria by date or language
- Only one person conducting the review
- Conducting multiple steps simultaneously
- Not conducting quality appraisal

1. Garrity et al., 2020, p. 1
2. Tricco et al., 2015; Tricco et al., 2020
Schools and ERE during the COVID-19 pandemic

Research questions

1. Where, when and by whom has K-12 research on teaching and learning during the COVID-19 pandemic been published?

2. What are the characteristics of, methods used, and topics studied in research on teaching and learning in K-12 during the COVID-19 pandemic?

3. What technology has been used during emergency remote teaching and what are stakeholder perceptions?

4. Which influential factors on student engagement within the microsystem were the most discussed?

5. What recommendations have been provided in the included studies for emergency remote teaching and learning going forward?
(Living) rapid review

Search

- Use of previous reviews to construct search string
- WoS, EBSCOHost, Scopus, Microsoft Academic Graph, ResearchGate, Twitter

“emergency remote teaching” OR “student-centred remote teaching” OR “emergency remote education” OR “student-centered remote teaching” OR “COVID-19” OR “COVID19” OR pandemic OR “Corona virus” OR “online pivot”

AND

“K-12” OR kindergarten OR kindy OR “primary school” OR “middle school” OR “secondary school” OR school OR “high school” OR “reception” OR “R-12” OR “junior primary” OR “elementary school” OR “middle primary” OR “upper primary” OR “senior school”

NOT

“public health” OR nonpharmaceutical OR energy OR pharmaceutical OR pharmacy OR clinic OR pathology OR telemedicine OR inflammation OR patient OR neurolog OR telehealth OR surgery OR universit OR “higher education” OR postgrad OR undergrad OR “tertiary education” OR college

Figure 3. Search string
## (Living) rapid review

### Screening
- EPPI-Reviewer
- 777 screened on title and abstract, 156 on full text

<table>
<thead>
<tr>
<th>Inclusion Criteria</th>
<th>Exclusion Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12</td>
<td>Higher education, further education</td>
</tr>
<tr>
<td>Teaching and learning setting (students, teachers, school leaders, administrative support structures)</td>
<td>No teaching and learning setting</td>
</tr>
<tr>
<td>English language</td>
<td>Not in English</td>
</tr>
<tr>
<td>Empirical study</td>
<td>Not empirical or primary research</td>
</tr>
<tr>
<td>Studies undertaken during the COVID-19 pandemic</td>
<td>Studies undertaken before the outbreak of COVID-19</td>
</tr>
</tbody>
</table>
EPPI-Reviewer

Screening

- Enable **auto advance**
- **Show terms** function highlights key phrases
- Use touch device
- Easy to edit and add codes or extra information
(Living) rapid review
*Using Open Alex in EPPI-Reviewer*

- Bring up-to-date or keep up-to-date
- Allows easy citation checking.
- Import items directly into your review.
- Create auto-updates for included items in your review.
(Living) rapid review

Data extraction

- 89 studies included for data extraction
- Use of previous reviews to construct data extraction tool
EPPI-Reviewer

Data extraction

- View PDFs within item records
- Highlight text and assign to codes
- Highlighted quotes appear in reports
- Produce reports with quotes for just one code

District leaders are aware of the geographical and socioeconomic barriers Austin students face including access to school-provided meals and the internet to engage in distance learning. So, 14 different sites across the city were established for lunch and breakfast pick-ups staffed by paraprofessionals and non-instructional staff with financial support from Hormel Foods. For those students without internet access, 5–12 building principals worked with families to identify free local internet services both in town and in farming neighborhoods. The Hormel Foundation also collaborated with the Austin Public Library and APS' district tech services department to issue 200 WiFi hotspots to students in Austin’s public and private schools at the end of April.

APS’s first priorities were equity and accessibility for students that need additional learning support. Technology coaches continually work with learning support specialists on identifying and making sure teachers use accessibility tools (closed captioning, text-to-speech and speech-to-text). Special education staff use individual and small group environments in synchronous video calls to assess students’ academics and continue social skills development. For elementary students, principals put devices in the hands of special education and EL students first. Technology coaches worked quickly to onboard families who had not previously connected digitally to communication apps and distributed classroom iPads and laptops to families who indicated they did not have access to a device at home.

In Austin, the EL students are at risk for great loss in terms of personal connection with teachers because of the added barrier of language. To counter this risk, APS’ key of success
(Living) rapid review

Data synthesis

- Narrative synthesis
- Tabulation and interactive evidence gap maps, computer-assisted content analysis

Figure 7. Terminology used to describe teaching and learning during the pandemic

Figure 6. Timeline of study publication
Selected key findings

• 88% of studies are available open access.

• Most research participants were from Europe (44%), Asia (27%) and North America (22%).

• The majority of studies were focused on experiences at secondary school level (78%), and focused on teachers and school leaders (71%).

https://eppi.ioe.ac.uk/CMS/Portals/35/Maps/Mel/EGM_Schools_ERE_RQ1.html
Selected key findings

• 52% qualitative, 44% quantitative, 4% mixed methods.

• Online surveys most prevalent (67%) and fit for purpose.

• The majority of studies were focused on general challenges in teaching and learning (63%), followed by teacher digital competence (33%), digital infrastructure (33%), student learning habits (32%), and school/home connection (31%).
Selected key findings

- Over 80 individual tools used.
- **Synchronous collaboration tools** (47%), **knowledge organisation and sharing tools** (43%), and **text-based tools** (38%).
- Most frequently mentioned tools Zoom, Google Classroom, LMS, videos made by teachers, and video conferencing software.

<table>
<thead>
<tr>
<th>Technology</th>
<th>n</th>
<th>Technology</th>
<th>n</th>
<th>Technology</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zoom</td>
<td>28</td>
<td>Discussion forums</td>
<td>2</td>
<td>URPlay</td>
<td>1</td>
</tr>
<tr>
<td>Google Classroom</td>
<td>19</td>
<td>Google Drive</td>
<td>2</td>
<td>Still</td>
<td>1</td>
</tr>
<tr>
<td>Other unnamed LMS</td>
<td>17</td>
<td>Class Dojo</td>
<td>2</td>
<td>iSLEarning platform</td>
<td>1</td>
</tr>
<tr>
<td>Videos (teacher made)</td>
<td>14</td>
<td>Showiris</td>
<td>2</td>
<td>Screencastify</td>
<td>1</td>
</tr>
<tr>
<td>Video conferencing (unknown)</td>
<td>12</td>
<td>BBC iPlayer</td>
<td>2</td>
<td>Flipboard</td>
<td>1</td>
</tr>
<tr>
<td>Email</td>
<td>11</td>
<td>Oak Academy</td>
<td>2</td>
<td>Blackboard</td>
<td>1</td>
</tr>
<tr>
<td>Facebook</td>
<td>9</td>
<td>Ding Talk</td>
<td>2</td>
<td>Explain Everything</td>
<td>1</td>
</tr>
<tr>
<td>WhatsApp</td>
<td>9</td>
<td>WeChat</td>
<td>2</td>
<td>Codecombat</td>
<td>1</td>
</tr>
<tr>
<td>Chat (unknown)</td>
<td>9</td>
<td>Moodle</td>
<td>1</td>
<td>Blogs</td>
<td>1</td>
</tr>
<tr>
<td>YouTube</td>
<td>7</td>
<td>Loom</td>
<td>1</td>
<td>International Children's digital</td>
<td>1</td>
</tr>
<tr>
<td>PowerPoint</td>
<td>6</td>
<td>Podcasts</td>
<td>1</td>
<td>Library</td>
<td>1</td>
</tr>
<tr>
<td>Google Meet</td>
<td>5</td>
<td>Twitter / Snapchat</td>
<td>1</td>
<td>Radio</td>
<td>1</td>
</tr>
<tr>
<td>Videos (made by others)</td>
<td>5</td>
<td>Learning games</td>
<td>1</td>
<td>PowToon</td>
<td>1</td>
</tr>
<tr>
<td>Google Forms</td>
<td>5</td>
<td>Autodesk SketchBook</td>
<td>1</td>
<td>Aatomy</td>
<td>1</td>
</tr>
<tr>
<td>Google Docs</td>
<td>5</td>
<td>FastStone Capture</td>
<td>1</td>
<td>Formative</td>
<td>1</td>
</tr>
<tr>
<td>Schoology</td>
<td>5</td>
<td>TED Ed</td>
<td>1</td>
<td>WebAssign</td>
<td>1</td>
</tr>
<tr>
<td>Slasaw</td>
<td>4</td>
<td>Sumdog</td>
<td>1</td>
<td>Google Slides Deck</td>
<td>1</td>
</tr>
<tr>
<td>Teams</td>
<td>4</td>
<td>Paragraph Punch</td>
<td>1</td>
<td>Tweak</td>
<td>1</td>
</tr>
<tr>
<td>TV lessons</td>
<td>4</td>
<td>Spelling City</td>
<td>1</td>
<td>Padlet</td>
<td>1</td>
</tr>
<tr>
<td>Videos (uncertain origin)</td>
<td>3</td>
<td>The DT Toolbox</td>
<td>1</td>
<td>Jitter</td>
<td>1</td>
</tr>
<tr>
<td>Self-assessment quizzes</td>
<td>3</td>
<td>Google Hangout</td>
<td>1</td>
<td>MeisterTank</td>
<td>1</td>
</tr>
<tr>
<td>Weibo</td>
<td>3</td>
<td>Greenups</td>
<td>1</td>
<td>MOOCs</td>
<td>1</td>
</tr>
<tr>
<td>Kahoot</td>
<td>3</td>
<td>Bangi</td>
<td>1</td>
<td>Chinese</td>
<td>1</td>
</tr>
<tr>
<td>Tencent Meeting</td>
<td>3</td>
<td>G Suite</td>
<td>1</td>
<td>CCTalk</td>
<td>1</td>
</tr>
<tr>
<td>Edmodo</td>
<td>2</td>
<td>Compass</td>
<td>1</td>
<td>Daymap</td>
<td>1</td>
</tr>
<tr>
<td>Microsoft 365</td>
<td>2</td>
<td>Education Perfect</td>
<td>1</td>
<td>Skype</td>
<td>1</td>
</tr>
</tbody>
</table>

https://eppi.ioe.ac.uk/CMS/Portals/35/Maps/Mel/EGM_Schools_ERE_RQ3.html
Interactive evidence gap maps

- Created for each research question
- Freely available open access
- Filterable, searchable
- Can download references
- Direct links to studies
- Can assist synthesis

Interactive evidence gap maps

- Created for each research question
- Freely available open access
- Filterable, searchable
- Can download references
- Direct links to studies
- Can assist synthesis

Identified research gaps

- Lack of research from Africa, Oceania, the Middle East and South America.
Identified research gaps

- Lack of research from Africa, Oceania, the Middle East and South America.

- More research needed on the experiences and preferences of students, especially in regards to vulnerable populations.
Identified research gaps

- Lack of research from Africa, Oceania, the Middle East and South America.
- Experiences and preferences of students, especially in regards to vulnerable populations.
- Multimodal production tools, social networking tools and assessment tools.
Identified research gaps

• Lack of research from Africa, Oceania, the Middle East and South America.

• Experiences and preferences of students, especially in regards to vulnerable populations.

• Multimodal production tools, social networking tools and assessment tools.

• Google Classroom, Edmodo, Moodle and videos.
(Living) review

Using EPPI-Visualiser within EPPI-Reviewer

https://eppi.ioe.ac.uk/eppi-vis/login/open?webdbid=5
Online and blended learning in secondary schools during the COVID-19 pandemic

Research questions

1. In what ways did emergency remote education affect motivation and engagement in secondary students?

2. How did research report on emerging online assessment practices in secondary schooling during the pandemic?

3. Are new approaches to peer collaboration emerging and what does this suggest?

4. How did online learning in secondary schools affect parent engagement?

5. What emerging uses of online and blended learning approaches in secondary schools could continue to be implemented going forward?
METHOD

Systematic review

This is a systematic review of research, using rigorous methods for identifying evidence, conducting quality appraisal and synthesis: 81 studies met our criteria and were included in the review.

Inclusion criteria
- Secondary school only
- English
- Teaching and learning
- Online or blended learning
- Primary, empirical research
- Undertaken during the pandemic

Search → Screening T&A → Screening full text → Data extraction → Quality appraisal → Synthesis

6,274 studies → 5,488 studies → 759 studies → 129 studies → 129 studies → 81 studies
State of research

<table>
<thead>
<tr>
<th>Continent</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td>34</td>
<td>42%</td>
</tr>
<tr>
<td>Europe</td>
<td>21</td>
<td>26%</td>
</tr>
<tr>
<td>North America</td>
<td>12</td>
<td>15%</td>
</tr>
<tr>
<td>Africa</td>
<td>5</td>
<td>6%</td>
</tr>
<tr>
<td>Middle East</td>
<td>5</td>
<td>6%</td>
</tr>
<tr>
<td>Oceania</td>
<td>3</td>
<td>4%</td>
</tr>
<tr>
<td>South America</td>
<td>1</td>
<td>1%</td>
</tr>
</tbody>
</table>
State of research

- Characteristics
  - “emergency remote research”
  - Largely focused on student and teacher data
    - Minimal focus on SEND students
    - Whose voices are being heard, and in which ways?
  - STEM subjects still the most researched, even in pandemic times
  - Years 10 and 11 more prevalent
Key findings

- Some students were more motivated to learn and complete school work.
  - Increased ability to study.
  - Heightened sense of responsibility.

- Some reserved students were found to interact and participate more.

<table>
<thead>
<tr>
<th>Top 5 Engagement Indicators</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Heightened self-regulation</td>
<td>26%</td>
</tr>
<tr>
<td>2 Understanding of topics/tasks</td>
<td>19%</td>
</tr>
<tr>
<td>3 Enjoyment</td>
<td>17%</td>
</tr>
<tr>
<td>4 Positive study habits</td>
<td>17%</td>
</tr>
<tr>
<td>5 Sense of wellbeing</td>
<td>16%</td>
</tr>
</tbody>
</table>
Key findings

- Emotional and physical distance.
- More instances of behavioural disengagement in studies from high income countries (59%) as opposed to lower middle income countries (29%).
- Having to learn to use new tools, as well as learning online, was quite overwhelming, alongside life load.

<table>
<thead>
<tr>
<th>Top 5 Engagement Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Top 5 Disengagement Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

Safeguarding concerns, internet connectivity, and technological skills were barriers.

Some countries halted assessment or banned certain types.
The worldwide shift to emergency remote education in 2020 as a result of the COVID-19 pandemic has impacted billions of students and teachers. A range of teaching and learning methods were implemented by schools as a result, despite confusing and sometimes contradictory measures. This has led to systemic issues such as equity and access impacting heavily on students.

In order to gain insight into how emergency remote education works for students, parents and educators, a systematic review was conducted to synthesize research evidence. The research questions were:

1. In what ways did emergency remote education affect motivation of students?
2. How did research report on emerging online assessment practices with COVID-19 pandemic?
3. Are new approaches to peer collaboration emerging and what methods are being used?
4. How did online learning in secondary schools affect parent engagement?
5. What emerging uses of online and blended learning approaches continue to be implemented in future?

Who wants to know?

The ESRC-funded International Public Policy Observatory (IPPO) response to roundtable meetings discussing the current situational review should be used to a range of communities including policymakers and students and their families.

What did we find?

Findings revealed that self-regulation and understanding were the student engagement, with online assessment tools, learning skills, live synchronous lessons with peer and teacher interaction, and teacher-led videos considered particularly engaging. Social isolation was the most frequently reported indicator of disengagement, characterised by poor attendance in live lessons, a lack of opportunities to seek help with challenges and difficulties facilitating peer collaboration.

Emergency remote teaching in higher education: Mapping the first global online semester

Research questions

1. Where, when and by whom has research on teaching and learning in higher education during the COVID-19 pandemic been published?

2. What are the characteristics of, methods used, and topics studied in teaching and learning research in higher education during the COVID-19 pandemic?

3. What technology has been used during emergency remote teaching in higher education?
# Mapping review

## Search
- Use of previous reviews to construct search string
- WoS, EBSCOHost, Scopus, Microsoft Academic Graph, PsycINFO, ProQuest, Dialnet, Latindex, Redalyc, ResearchGate, CHELD V1 database, COVID-19 living systematic map, Twitter

## Screening
- EPPI-Reviewer
- 9,946 screened on title and abstract, 661 on full text
- Higher ed, teaching and learning setting, empirical, English/Spanish/German language, during pandemic

## Data extraction
- 282 studies included for data extraction
- Use of previous reviews to construct data extraction tool

## Data synthesis
- Narrative synthesis
- Computer-assisted content analysis
- Tabulation, interactive evidence gap maps and web database
Sample focus

<table>
<thead>
<tr>
<th>Continent</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td>78</td>
<td>27.7%</td>
</tr>
<tr>
<td>Europe</td>
<td>77</td>
<td>27.3%</td>
</tr>
<tr>
<td>North America</td>
<td>64</td>
<td>22.7%</td>
</tr>
<tr>
<td>Middle East</td>
<td>40</td>
<td>14.2%</td>
</tr>
<tr>
<td>South &amp; Central America</td>
<td>18</td>
<td>6.4%</td>
</tr>
<tr>
<td>Africa</td>
<td>17</td>
<td>6.0%</td>
</tr>
<tr>
<td>Oceania</td>
<td>6</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

- Predominantly focused on undergraduates (46.1%)
- Health & Welfare (27.3%)
- Natural Science, Maths & Stats (24.1%)
- Education (16%)

Appendix D. Scope of participant focus

<table>
<thead>
<tr>
<th>Participant Focus</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>233</td>
<td>32.6%</td>
</tr>
<tr>
<td>Teachers/Instructors</td>
<td>81</td>
<td>28.7%</td>
</tr>
<tr>
<td>Department Managers</td>
<td>10</td>
<td>3.3%</td>
</tr>
<tr>
<td>Support Staff</td>
<td>8</td>
<td>2.8%</td>
</tr>
<tr>
<td>Librarians</td>
<td>2</td>
<td>0.7%</td>
</tr>
<tr>
<td>IT experts and developers</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>Policy makers</td>
<td>1</td>
<td>0.4%</td>
</tr>
</tbody>
</table>
Key findings

Table 7  Top five topic focus of studies (n = 282)

<table>
<thead>
<tr>
<th>Area of focus</th>
<th>N studies</th>
<th>N studies [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student perceptions of online learning</td>
<td>171</td>
<td>60.6</td>
</tr>
<tr>
<td>Impact of shift to online learning</td>
<td>84</td>
<td>29.8</td>
</tr>
<tr>
<td>Teacher perceptions of online learning</td>
<td>54</td>
<td>19.1</td>
</tr>
<tr>
<td>Students' technical equipment</td>
<td>38</td>
<td>13.5</td>
</tr>
<tr>
<td>Course redesign</td>
<td>31</td>
<td>11.0</td>
</tr>
</tbody>
</table>

Fig. 5  Concept map of study titles and abstracts (n = 262)
Mapping the emerging field of research on "emergency remote teaching" in higher education due to COVID-19: Implications for education research and practice

Dr Melissa Bond (UCL), Dr Svenja Bedenlier (FAU), Dr Marion Händel (FAU) and Dr Victoria Marín (UniSA)

As a result of the unprecedented impact that the COVID-19 pandemic has had on education, this systematic review of literature, focused on teaching and learning in higher education, has been synthesised, but this will be an ongoing project. A pre-print of the first article is available here. The International Journal of Educational Technology in Higher Education is available here. For further research that could be added to the review, please contact Melissa.

Click here to be taken to an open access database of the coding in the review.

Are systematic reviews ‘harder’ to get published?

On average, 19 days longer to receive an initial response to a systematic review article, and 40 days longer to final acceptance, with the overall process taking 66 days longer on average for the entire publication process.
Lessons learned and suggestions

- Seek expert guidance if possible
  - At least one person on a team
- Keep team small for rapid reviews
- Factor in time scale
- Have a good understanding of RQ and coding scheme between you
- Use evidence synthesis software (e.g. EPPI-Reviewer) and keep all information in one place
- Consider language bias and grey literature
- Utilise machine learning where appropriate
- Include a PRISMA diagram (see Page et al., 2021)
- If planning to publish, have an outlet in mind as early as possible

See also Bond (2021); Bedenlier et al. (2020)
Further Resources

- Blog post - [The classroom of the future: how has COVID-19 changed the ways children learn and teachers teach?](#)
- Blog post - [Lockdown schooling: research from across the world shows reasons to be hopeful](#)
- [Schools and emergency remote education during the COVID-19 pandemic](#) – information and interactive evidence gap maps.
- [Further information](#) about secondary education teaching and learning during the COVID-19 pandemic.
- Interactive [web database](#) of included studies in the IPPO project.
- [EPPI-Reviewer homepage](#) – sign up to a free one month trial.
- Reach out for hands-on workshops, research collaboration or assistance with conducting reviews - [http://drmelissabond.weebly.com/](http://drmelissabond.weebly.com/)
References


