Acknowledgement of Country

Im Geiste der Versöhnung erkennen UniSA und ich die traditionellen Hüter des Landes in ganz Australien und ihre Verbindungen zu Land, Meer und Gemeinschaft an. Wir erweisen ihren Ältesten in Vergangenheit und Gegenwart unseren Respekt und dehnen diesen Respekt auf alle heutigen Völker der Aboriginals und Bewohner der Torres-Strait-Inseln aus.

David R Horton (creator), © AIATSIS, 1996.

Agenda

1. Presenter background

2. Emergency remote education in schools: a rapid review

3. ERE: A focus on secondary schools

4. Implications for teaching and research

5. Further resources

6. Graduate Certificate in Education Studies (Digital Learning)

7. Q&A

Hintergrund

- In Clare (Südaustralien) geboren

- Gesamtschullehrerin (10 Jahre)
  - ➢ Deutsch
  - ➢ Informatik
  - ➢ Sozialkunde
  - ➢ Englisch
  - ➢ Musik
  - ➢ Theater

Hintergrund

- Wissenschaftliche Mitarbeiterin

  ➢ Carl von Ossietzky Universität Oldenburg

  ➢ ActiveLearn Projekt

  ➢ PhD, 2020:

  ❖ *Facilitating student engagement through educational technology: Current research, practices and perspectives*

Facilitating student engagement through educational technology

Current research, practices and perspectives

Melissa Bond

PhD Disputation
Thursday, 9th July 2020

Hintergrund

- EPPI-Reviewer Support Officer

  ➢ University College London

  ➢ Feb. 2020 – Feb. 2022

  ➢ Systematic & mapping reviews

  ➢ Technische Unterstützung

Hintergrund

- Lecturer (Digital Technology Education)

  - University of South Australia

  - Lehre: Undergraduate und Postgraduate

  - Forschung: AI, IRC, sprachlicher Bias in Evidenzsynthesen, Doktorandenausbildung…

Source: https://southaustralia.com/

Schools & 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 school leaders 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.

Covid: Teaching in Wales 'must reinvent itself in a day again'
11 December 2020 | Comments

Covid: 'Xbox and PlayStation home-learning' for some pupils
By Jordan Davies
BBC News
7 December 2020

Covid: Laptop allocation for deprived pupils cut at some schools
24 October 2020

GETTY IMAGES

PA MEDIA

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BBC (2020); Davies (2020)

Systematic Review Methodology

- "a review of research literature using systematic and explicit, accountable methods"[1]

  - Transparent und explizit

  - Replizierbar und Aktualizierbar

  - Forschungslücken, Widersprüche oder Inkonsistenzen erkennen

- "Rather than looking at any study in isolation, we need to look at the body of evidence"[2]
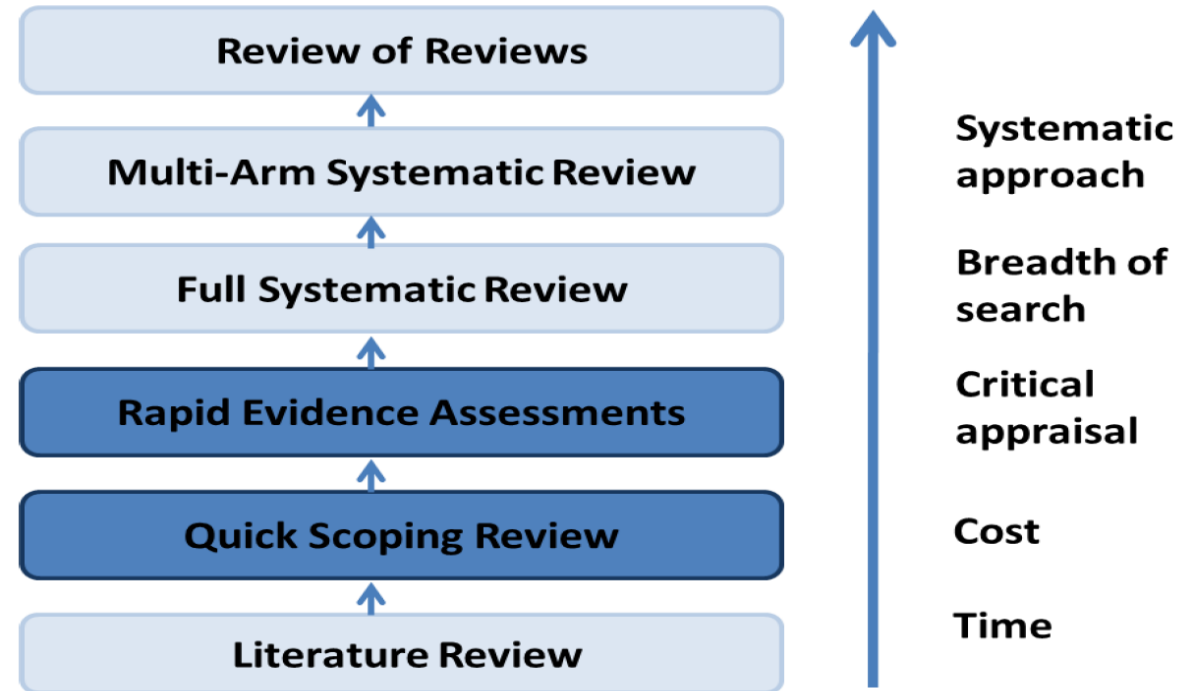
Collins, Coughlin, Miller, & Kirk (2015, p. 1)

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

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?

Rapid review method

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

Screening
- EPPI-Reviewer
- 777 screened on title and abstract, 156 on full text
- K-12, teaching and learning setting, empirical, English language, during pandemic

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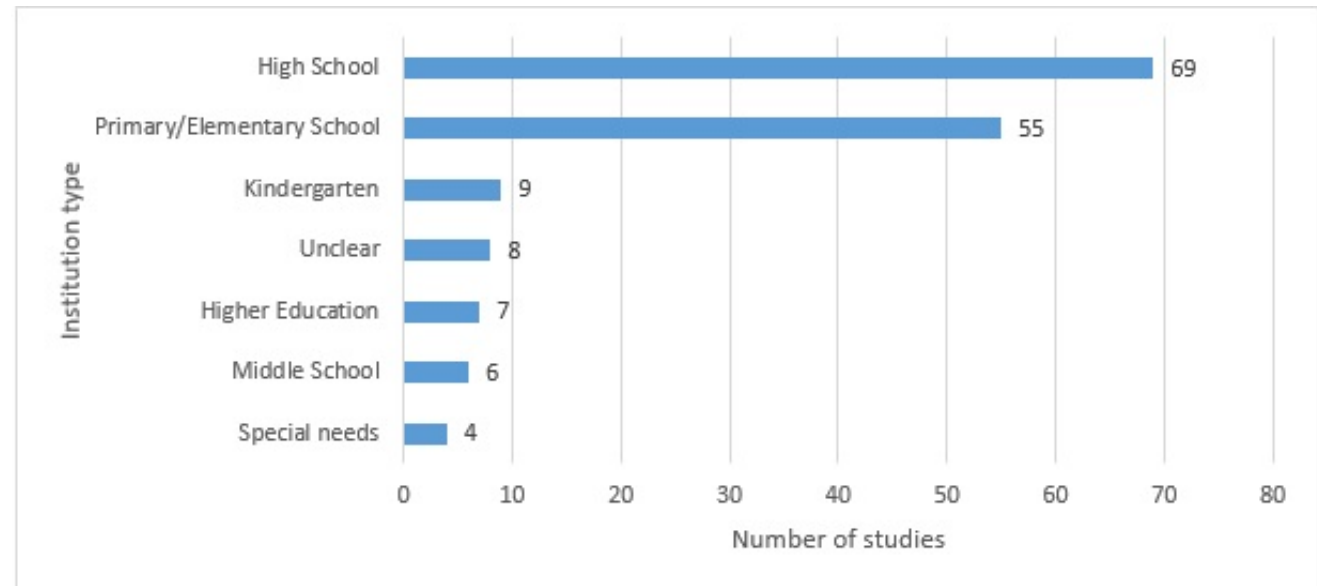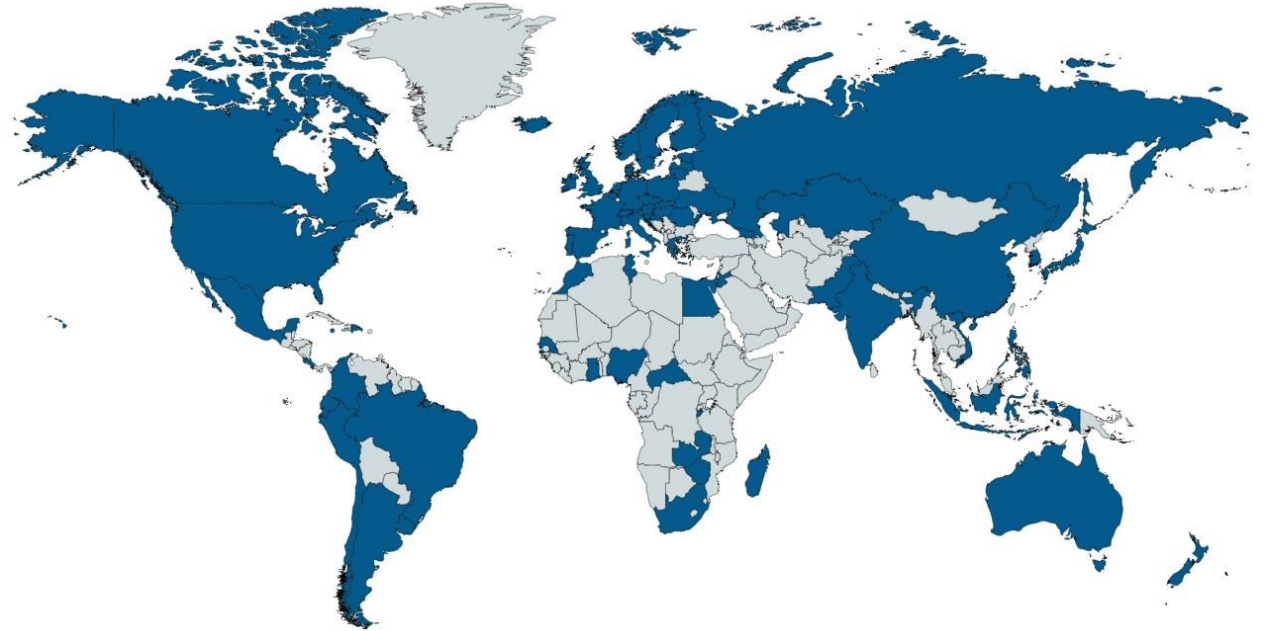- Use of previous reviews to construct data extraction tool

Data synthesis
- Narrative synthesis
- Tabulation and interactive evidence gap maps

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Key findings

- 1 x ESL study

- 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

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%).

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.

Technology	n	Technology	n	Technology	n
Zoom	26	Discussion forums	2	URPlay	1
Google Classroom	19	Google Drive	2	Sli	1
Other unnamed LMS	17	Class Dojo	2	SLearning platform	1
Videos (teacher made)	14	Showbie	2	Screencastify	1
Video conferencing (unknown)	12	BBC Bitesize	2	Flipgrid	1
Email	11	Oak Academzy	2	Blackboard	1
Facebook	9	DingTalk	2	Explain Everything	1
WhatsApp	9	WeChat	2	Codecombat	1
Chat/messaging (unknown)	9	Moodle	1	Blogs	1
YouTube	7	Edpuzzle	1	International Children's digital library	1
PowerPoint	6	Podcasts	1	Radio	1
Google Meet	6	Twitter / Snapchat	1	PowToon	1
Videos (made by others)	5	Learning games	1	Alcody	1
Google Forms	5	Autodesk SketchBook	1	Formative	1
Google Docs	5	FastStone Capture	1	WebASsign	1
Schoology	5	TEDEd	1	Google Slide Deck	1
Seesaw	4	Sumdog	1	Twinkl	1
Teams	4	Paragraph Punch	1	Padlet	1
TV lessons	4	Spelling City	1	Jitsi	1
Videos (uncertain origin)	3	The OT Toolbox	1	MeisterTask	1
Self-assessment quizzes	3	Google Hangout	1	MOOCs	1
Webex	3	Gleerups	1	Chaoxing	1
Kahoot	3	Bingel	1	CCTalk	1
Tencent Meeting	3	GSuite	1	Daymap	1
Edmodo	2	Compass	1	Skype	1
Microsoft 365	2	Education Perfect	1		

Identified research gaps

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

	Africa	Asia	Europe	Oceania	Middle East	North America	South America
Teacher digital competence							
School-home connection							
Digital infrastructure							
Administrative response							
Technology choice							
General challenges							

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.
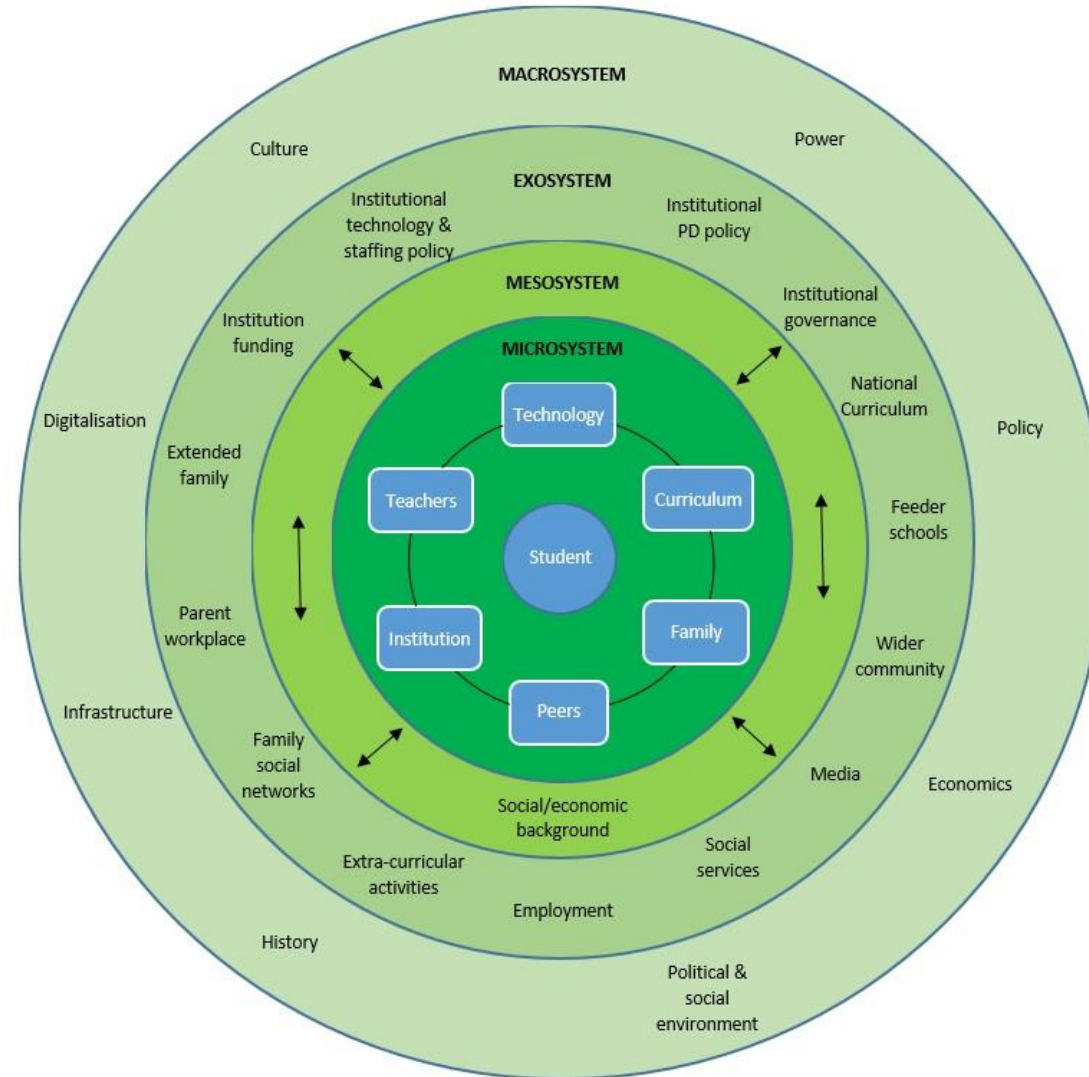
Identified research gaps

- 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.

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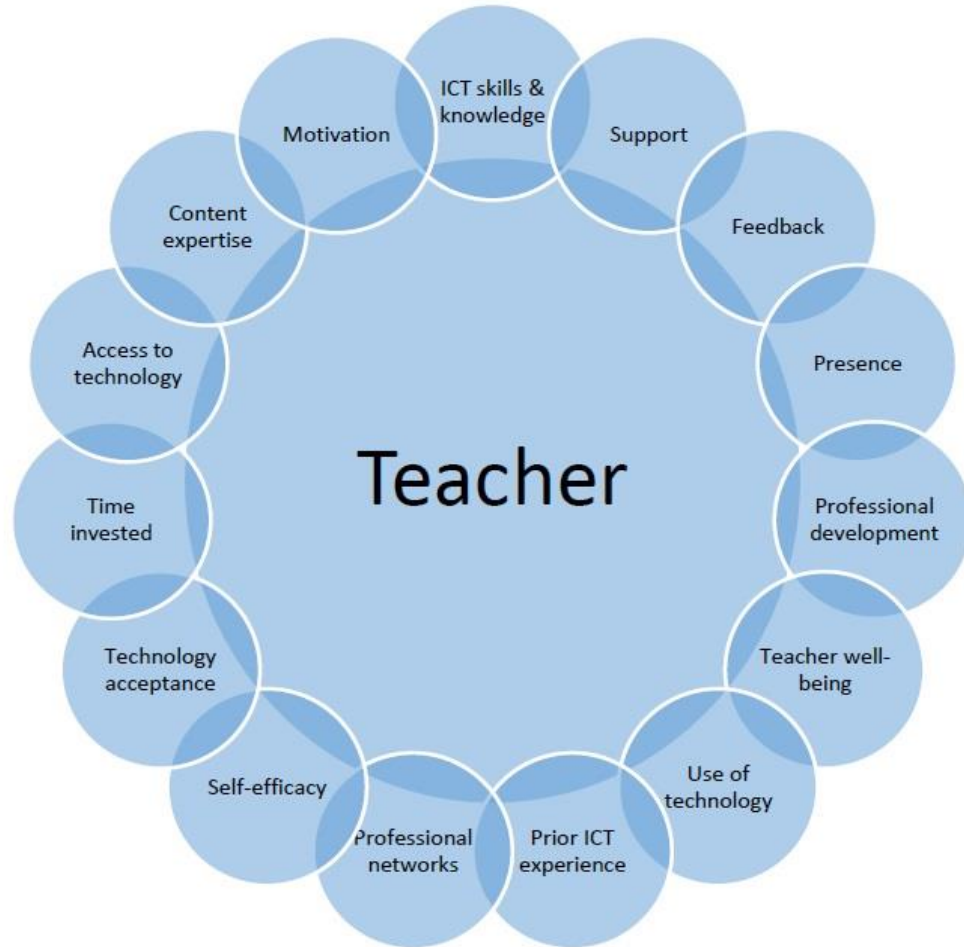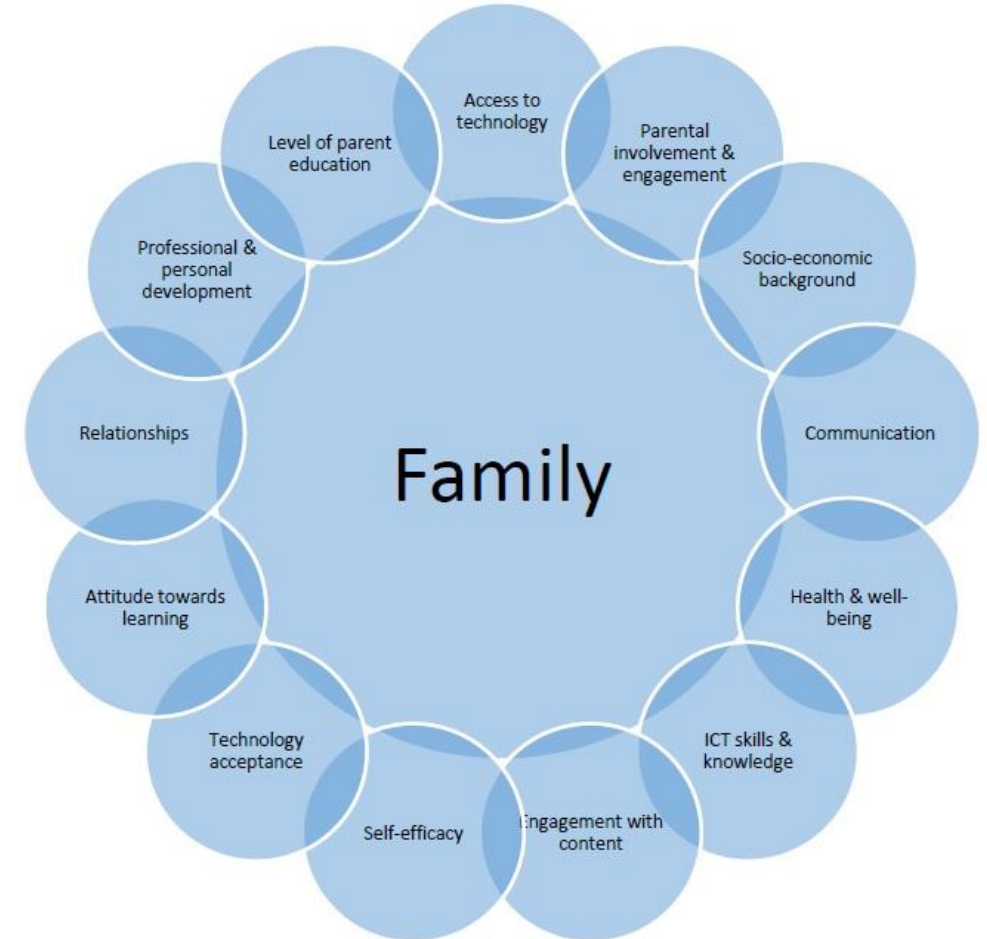- Google Classroom, Edmodo, Moodle and videos.
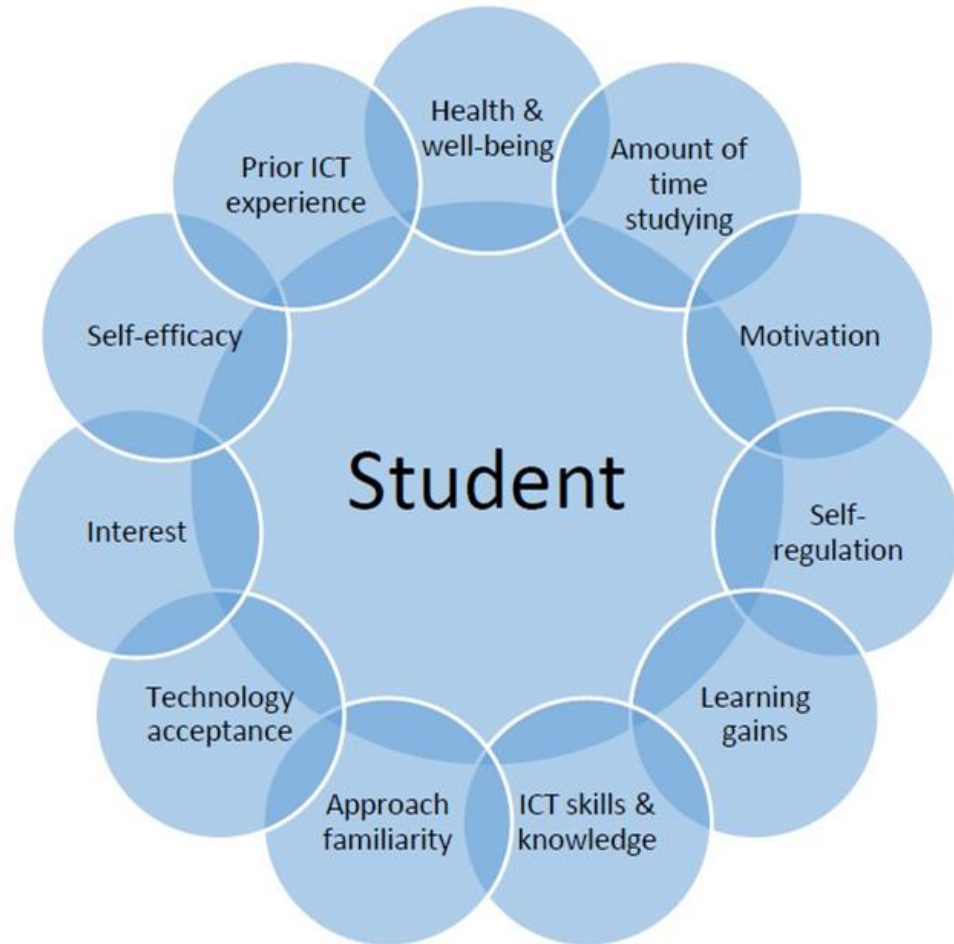
Bioecological model of engagement

Influences on engagement

81%
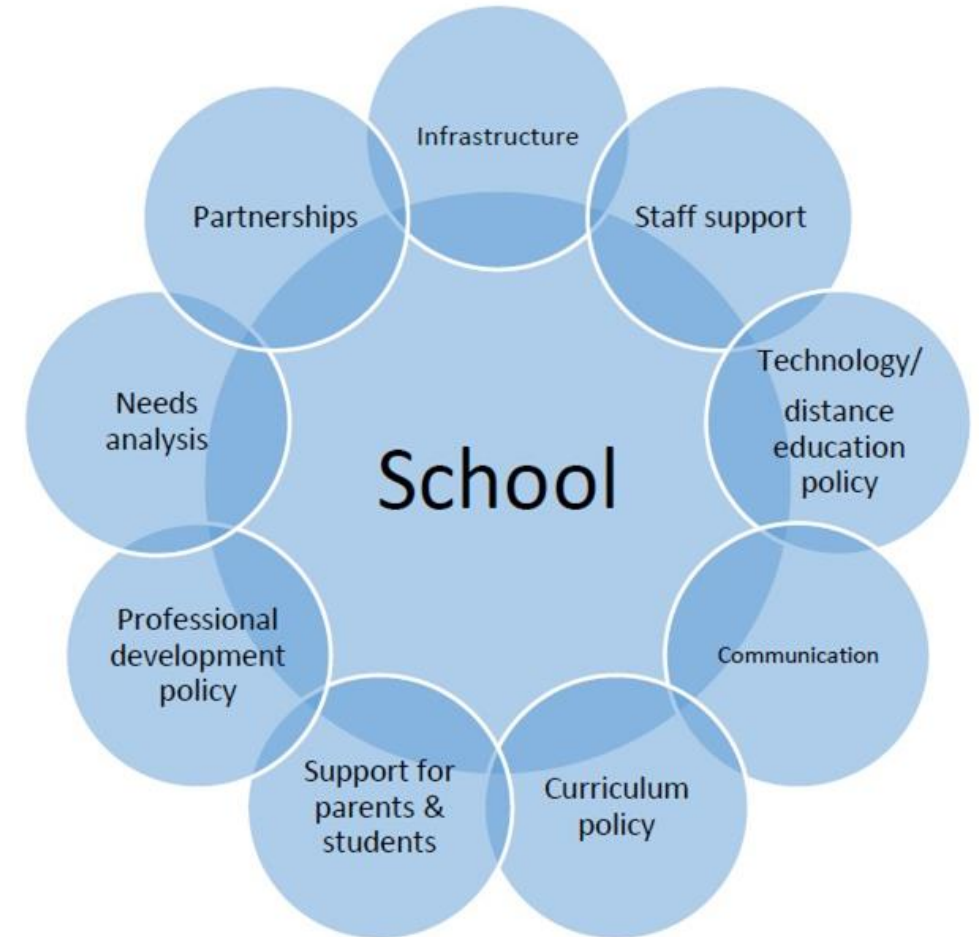
78%

Influences on engagement

78%

58%

Influences on engagement

Curriculum: Design, Use of technology, Reinforcement, Level of challenge, Useful/authentic, Relevant, Collaborative/hands on, Quality

44%

Learning environment: Assessment, Usability, Accessibility, Sense of community, Collaborative, Access to technology, Design, Technology choice, Supportive, Content length
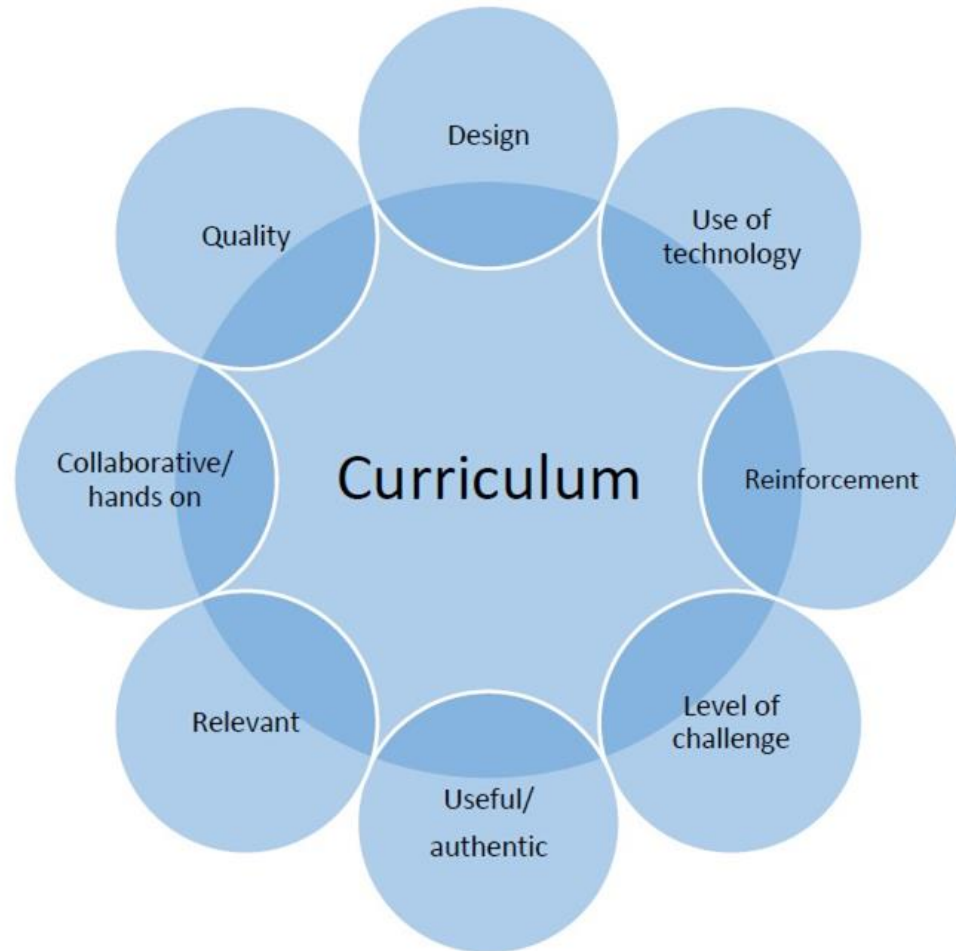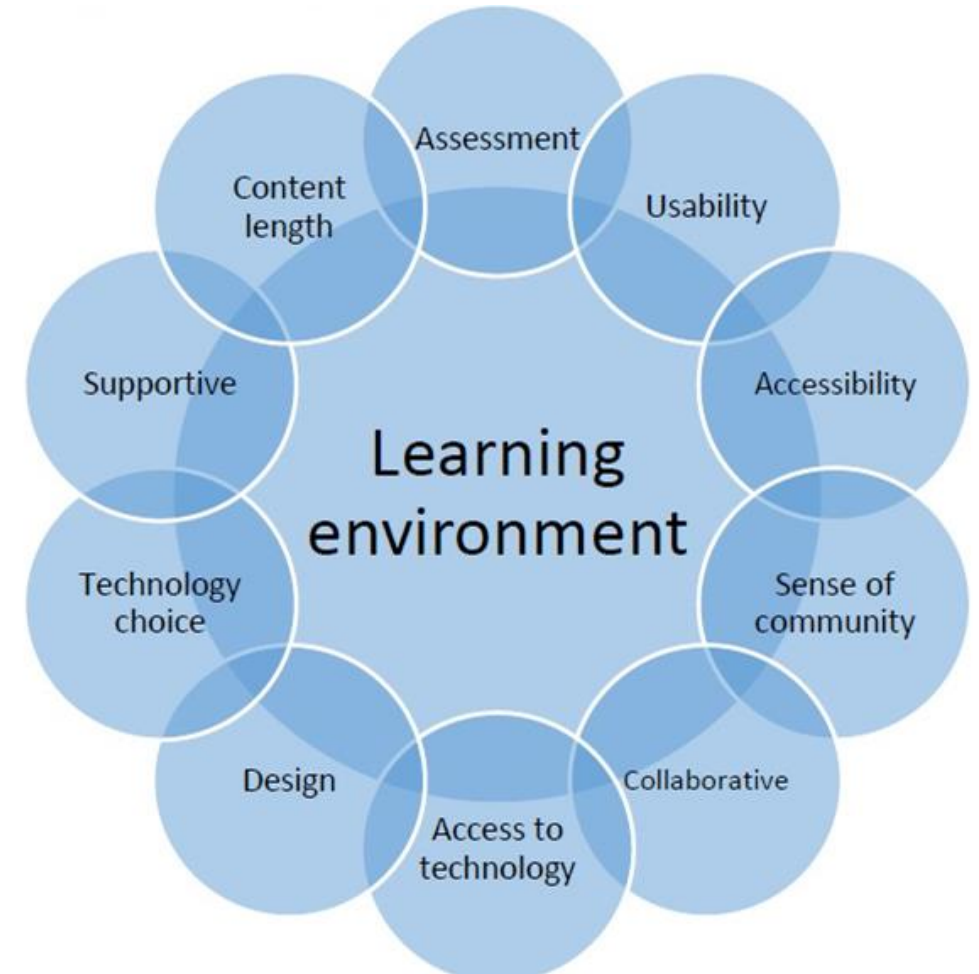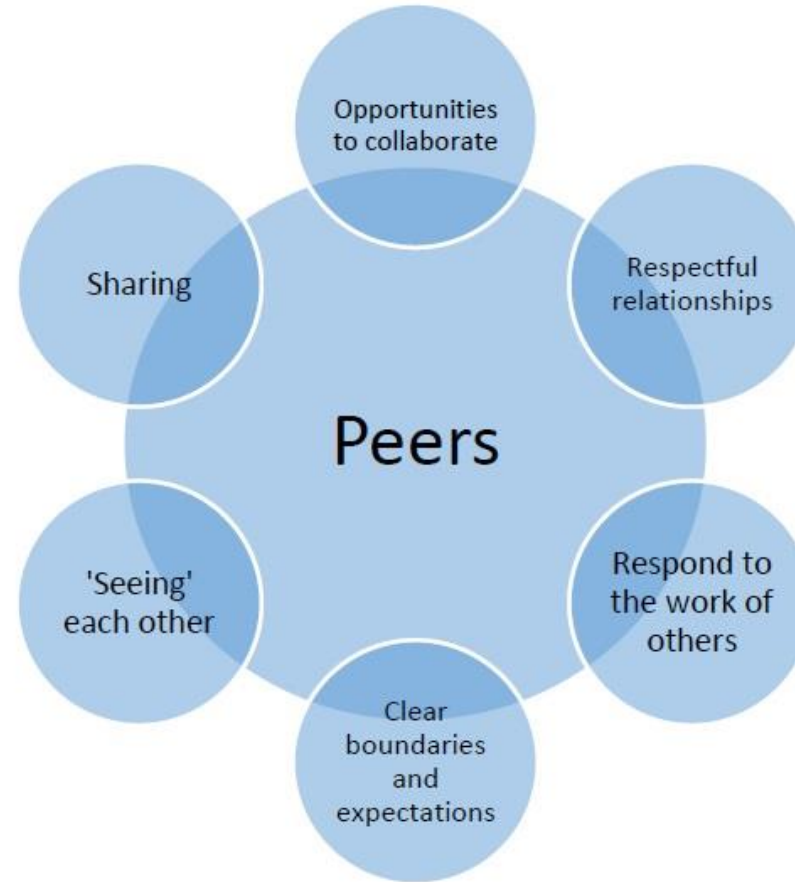
42%

Influences on engagement

28%

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
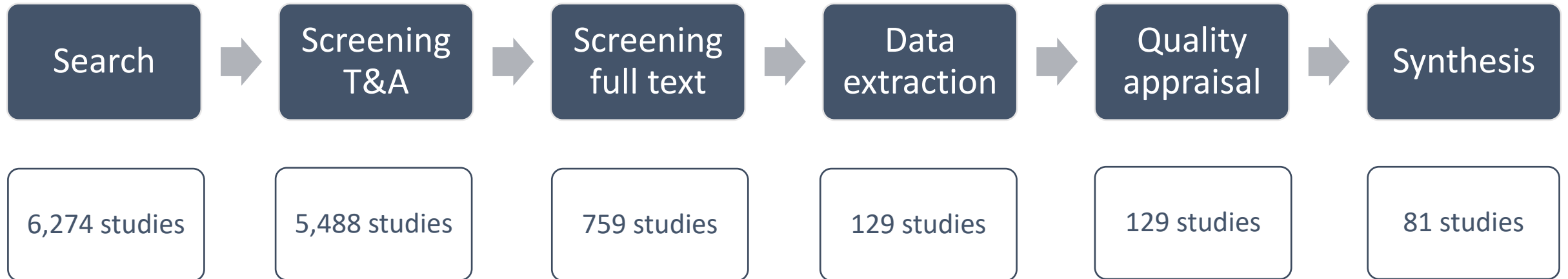
State of research
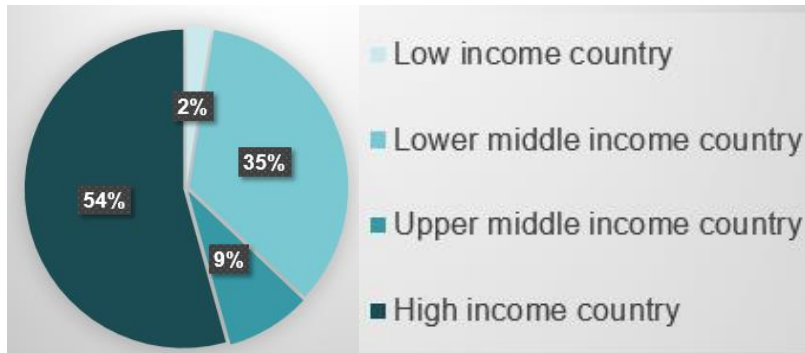
Continent	N	%
Asia	34	42%
Europe	21	26%
North America	12	15%
Africa	5	6%
Middle East	5	6%
Oceania	3	4%
South America	1	1%

Legend:
- High Income Countries
- Upper Middle Income Countries
- Lower Middle Income Countries
- Low Income Countries

Pie chart:
- 2%
- 35%
- 9%
- 54%

- Low income country
- Lower middle income country
- Upper middle income country
- High income country
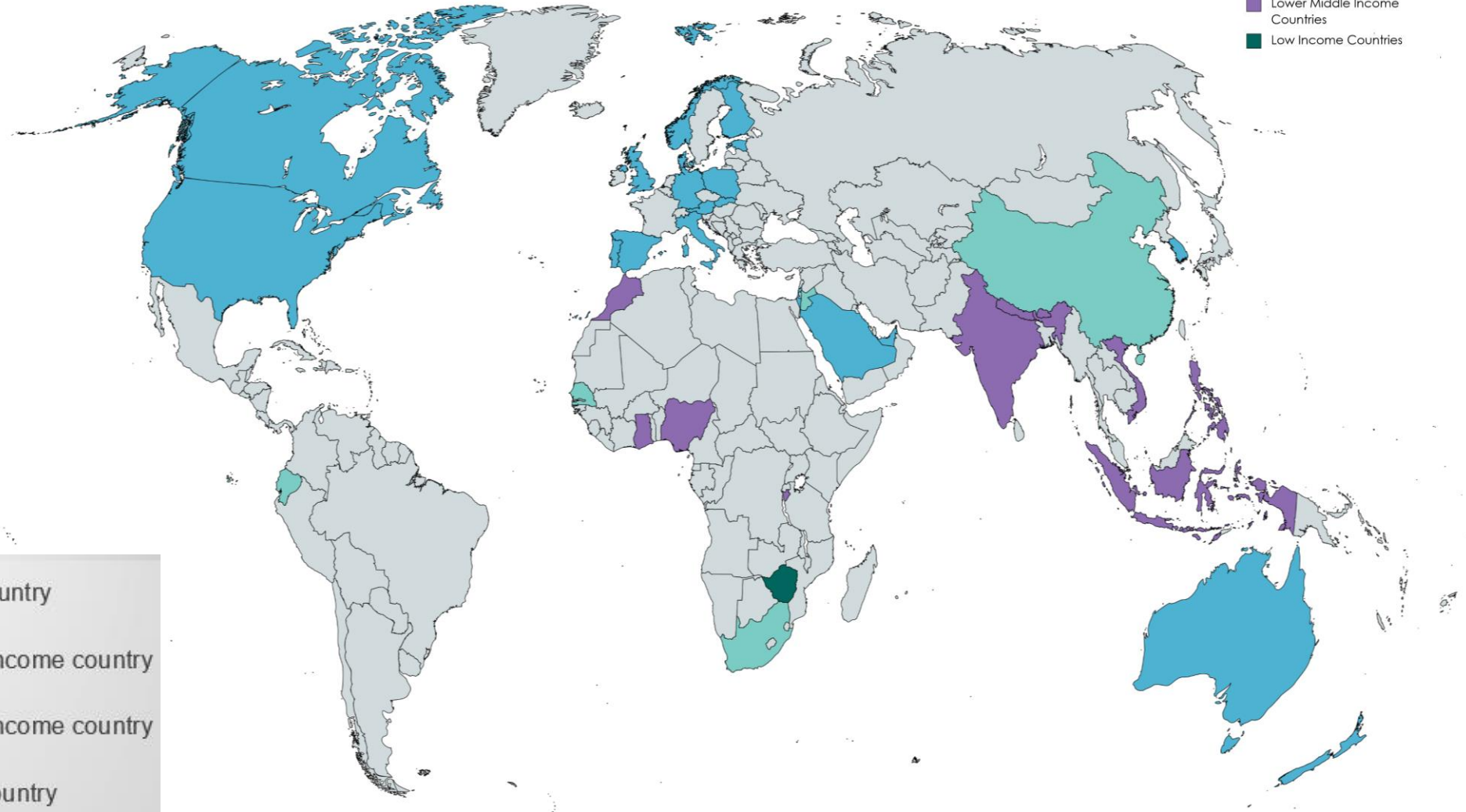
State of research

- **Characteristics**
  - ➤ "emergency remote research"
  - ➤ Largely focused on student and teacher data
    - o Minimal focus on SEND students
    - o 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
  - ➤ 14 studies on foreign language teaching (incl. ESL)

Key findings

	Top 5 Engagement Indicators	
1	Heightened self-regulation	26%
2	Understanding of topics/tasks	19%
3	Enjoyment	17%
4	Positive study habits	17%
5	Sense of wellbeing	16%
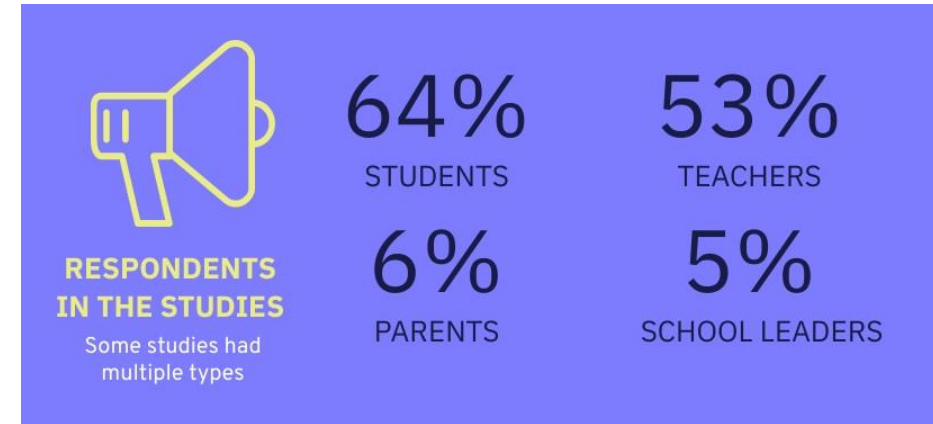
- Some students were more motivated to learn and complete school work.
  - ➢ Increased ability to study.
  - ➢ Heightened sense of responsibility.

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

Some students found group work easier when collaborating online

21 Types of online assessment

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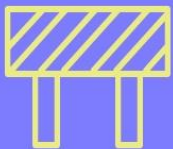
Safeguarding concerns, internet connectivity, and technological skills were barriers

Some countries halted assessment or banned certain types

	Top 5 Engagement Indicators	
1	Heightened self-regulation	26%
2	Understanding of topics/tasks	19%
3	Enjoyment	17%
4	Positive study habits	17%
5	Sense of wellbeing	16%

	Top 5 Disengagement Indicators	
1	Feeling isolated socially	27%
2	Absence from live lessons	19%
3	Confusion	19%
4	Feeling overwhelmed	14%
5	Dislike	12%

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How do we move education online effectively?

- **Tools**

  ➢ Synchronous collaboration tools

    o Regular Zoom calls with social time

    o Breakout rooms – opportunities for social engagement

  ➢ Knowledge organisation & sharing tools

    o LMS with collaborative tools

    o Quizzes embedded within LMS or videos

  ➢ Multimedia production tools

    o Videos made by both teacher and other resources (e.g. YouTube, Oak)

    o Record/use oral assessments, conversations, debates, role plays, music/drama performances, sport skills

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How do we move education online effectively?

- **Approaches**

  ➢ Structure

  - o Scaffold structure for students to begin with & clear expectations

  - o Include time for synchronous and asynchronous activities

  ➢ Collaboration

  - o Explicit instruction/guidance in how to collaborate effectively with peers online

  - o Provide opportunities for peer collaboration, e.g. co-creation of resources

  ➢ Assessment

  - o Self and peer assessment

  - o Quizzes

  - o Flipped feedback

  - o Differentiation

Implications for policy, research and practice

Policy

➢ Increased focus on teacher digital skills, knowledge and pedagogical approaches

➢ Further opportunities for teacher professional development in the area of blended/hybrid/online learning

➢ Allow time for learning design in new learning formats and content creation

➢ Increased recognition of ongoing issues of digital divide

Research

➢ Heightened consideration of wider school community

➢ Stronger theoretical links

Practice

➢ School-wide approach: needs analysis, loan equipment, multiple methods of delivery

➢ Joint/parent teacher workshops on digital approaches

➢ Practitioner research

Weitere Resourcen

- 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.

- [Schools and ERE during the COVID-19 pandemic](#) – rapid review article.

- [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.

- Come and study or research with me - http://drmelissabond.weebly.com/current-teaching.html

Grad. Cert. in Education Studies (Digital Learning)

Study the only education-focused digital learning postgraduate qualification in South Australia.

Study this qualification fully online.

Gain advanced skills and knowledge in the development and delivery of digital and online learning platforms.

This qualification is suitable for educators and education support staff across all year levels, including early childhood, primary, secondary and adult education.

Apply course concepts directly to your sector's digital learning environment.

Learn from a university that has over 25 years' experience in delivering online education.

Use this qualification as a pathway to further learning, including the Master of Education or doctoral studies.

Explore specific areas of personal interest including gamification, augmented reality, and mobile learning in project-based courses.

Degree structure

Course name	Area and cat no.	Units
FIRST YEAR		
Introduction to Digital Learning	EDUC 5243	4.5
Digital Learning Environments: Design and Implementation	EDUC 5242	4.5
Two of the following 3 courses:		
Online Learning Communities: Formal and Informal	EDUC 5239	4.5
Learning Analytics and Digital Learning	EDUC 5244	4.5
Learners in a Digital Age: Innovative Practices	EDUC 5237	4.5

unisa.edu.au/digital-learning

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