

Aktive Teilnahme:

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evasys Tagung
21. September 2022



**University of
South Australia**

Student Engagement in digitalen Lehr-Lern-Settings

Dr Melissa Bond

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 [@misc_nerd](https://twitter.com/misc_nerd)



UniSA

 CENTRE FOR CHANGE AND
COMPLEXITY IN LEARNING

Education Futures



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 ihnen 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. Hintergrund der Sprecherin
2. Was ist eigentlich Student Engagement?
 - Bioökologisches Modell
 - Facetten von Student Engagement und Disengagement
3. Digitale Medien und Engagement in Hochschulen vor und während der Coronakrise
4. Implikationen für Bewertung und Praxis
5. Fragen

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Hintergrund

- In Clare, Südaustralien, geboren
- Gesamtschullehrerin (10 Jahre)
 - Deutsch
 - Englisch
 - Informatik
 - Musik
 - Sozialkunde
 - 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...



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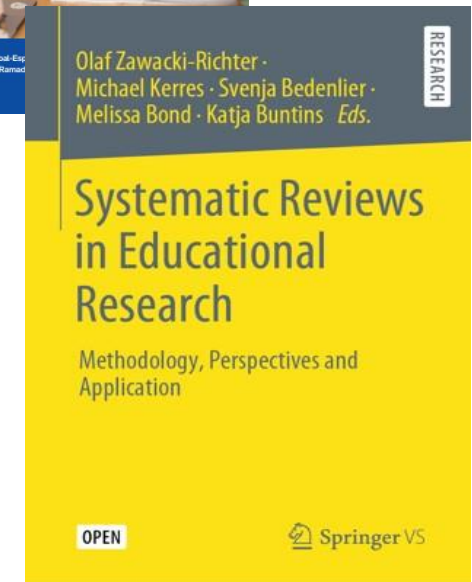
Evidence synthesis

Veröffentliche 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](#)

Aktuelle Reviews

- sprachlicher Bias in Evidenzsynthesen
- künstliche Intelligenz in der Bildung
- Doktorandenausbildung
- internationale Forschungszusammenarbeit im Bereich Bildungsforschung



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Student Engagement

Like a black box¹

“A catch-all term”²

Suffers from indigestion³

“One of the most widely used and overgeneralised constructs found in the educational, learning, instructional and psychological sciences.”⁴

“3 blind men describing an elephant”⁵

1. Bryson & Hardy (2011)
2. Krause (2005, p. 3)
3. Zepke (2018, p. 43)
4. Azevedo (2015, p. 84)
5. Eccles (2016, p. 71); also Baron & Corbin (2012)

Student Engagement



Der Forschung zu digitalen Medien fehlt es an theoretischer Anleitung

Fehlender theoretischer Rahmen⁴

Definitionen & Operationalisierungen von Engagement gehen weit auseinander⁵

1. Alioon & Delialioglu (2017); Bouta, Retalis & Paraskeva (2012)
2. Salaber (2014); Northey, et al. (2015); Alioon & Delialioglu (2017)
3. Junco (2012); Alioon & Delialioglu (2017)
4. Hew et al. (2019); Karabulut et al. (2018)
5. Henrie, Halverson & Graham (2015)

Was ist Student Engagement?

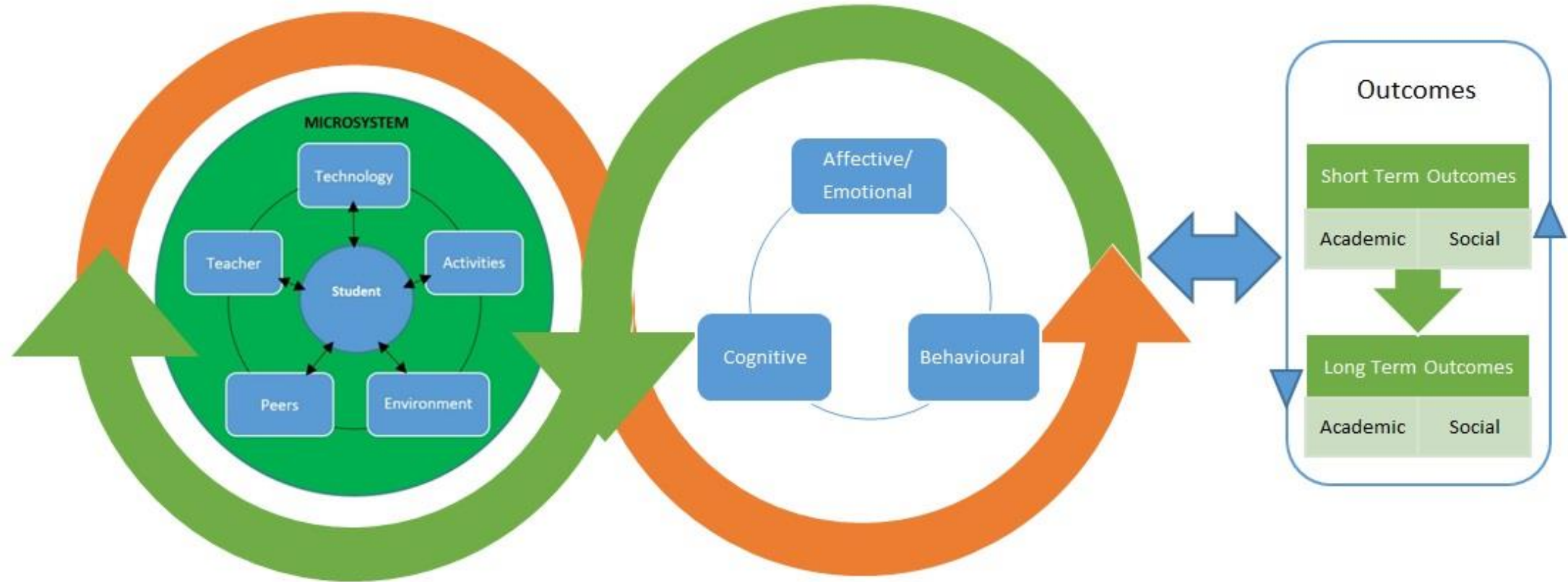
Student engagement is the **energy and effort** that students employ within their learning community, observable via any number of **behavioural, cognitive or affective** indicators across a continuum. It is shaped by a range of **structural and internal influences**, including the complex interplay of relationships, learning activities and the learning environment. The more students are engaged and empowered within their learning community, the more likely they are to channel that energy back into their learning, leading to a range of short and long term outcomes, that can likewise further fuel engagement.¹

Und was ist mit sozialem Engagement?

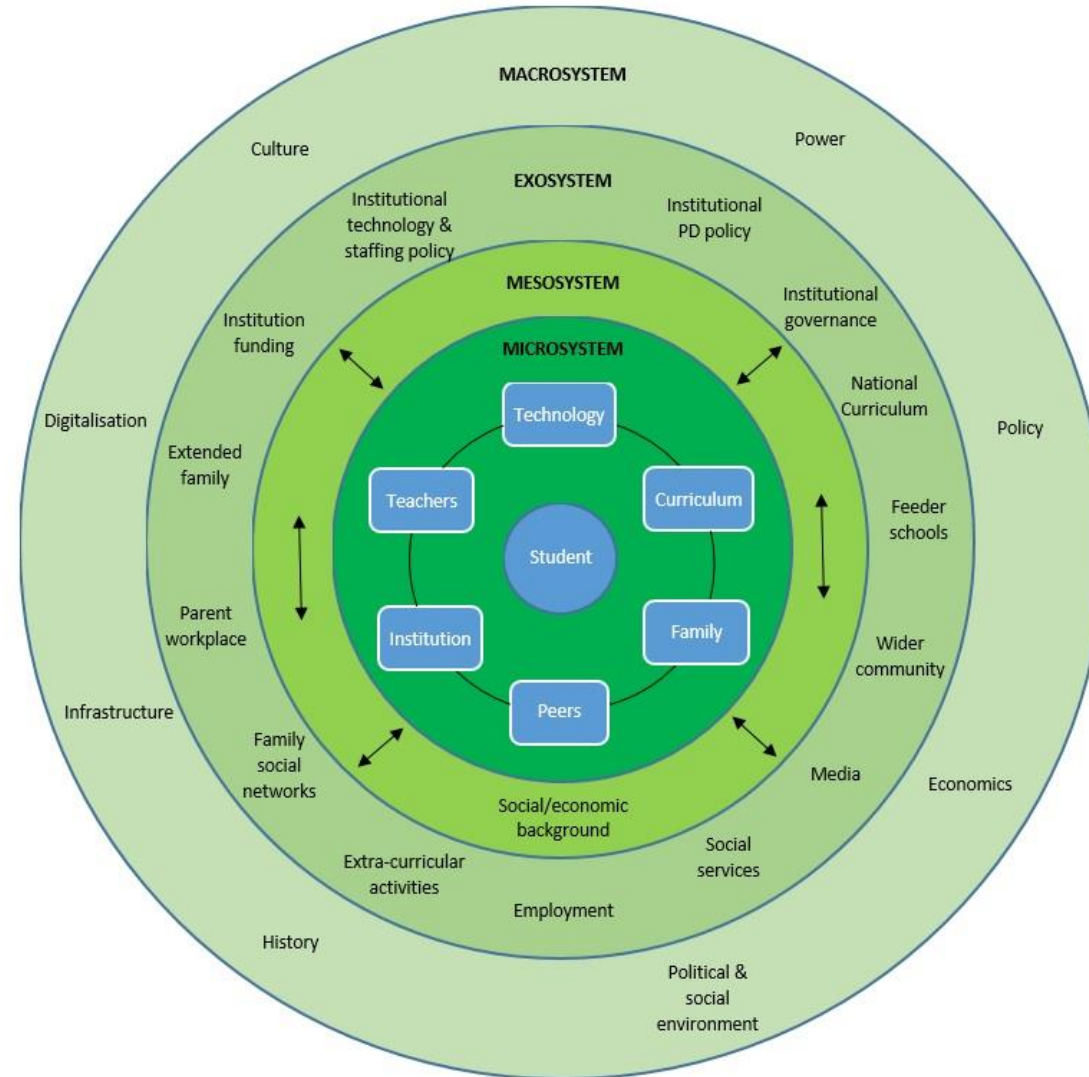
Student Engagement Framework

Technology-Enhanced Learning Environment

Student Engagement



Bioökologisches Modell



(Dis-)Engagement Facetten (Beispiele)

Behavioural Engagement	Kognitives Engagement	Affektives Engagement	Soziales Engagement
Bemühen	kritisches Denken	Begeisterung	Mit Peers zusammenarbeiten
Aufgaben fertig machen	Lernziele setzen	Interesse	Mit Lehrer*innen zusammenarbeiten
Teilnahme am Online-Unterricht	Nachdenken	Zufriedenheit	Diskussion mit Peers
Verantwortung übernehmen	tiefes Lernen	Stolz	Nach Hilfe fragen
Beteiligung	Fokus/Konzentration	Aufregung	Sich um andere kümmern

Behavioural Disengagement	Kognitives Disengagement	Affektives Disengagement	Soziales Disengagement
Prokrastination	unwillig	Langeweile	sich isoliert fühlen
Abwesenheit	Teilnahmslosigkeit	Verärgerung	sich nicht umsorgt fühlen
Aufgeben	Widerspruch	Abneigung	zurückgezogen
schlechtes Benehmen	Vermeidung	Desinteresse	andere ignorieren
Aufgabe Unvollständigkeit	unkonzentriert	Enttäuschung	Verzicht auf soziale Inklusion

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Digitale Medien und Engagement in Hochschulen vor der Pandemie

Forschungsfragen

1. How do the studies in the sample ground student engagement and align with theory?
2. Which indicators of cognitive, behavioural and affective engagement were identified in studies where educational technology was used? Which indicators of student disengagement?
3. What are the learning scenarios, modes of delivery and educational technology tools employed in the studies?

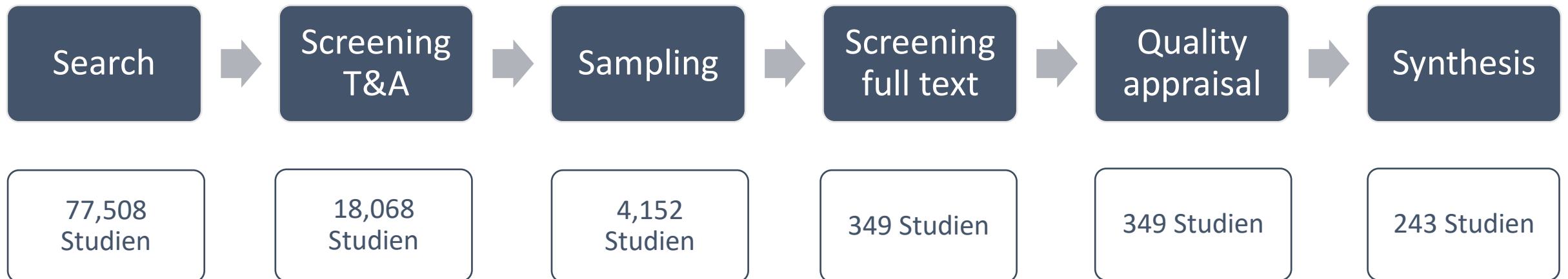
METHOD

Systematic review

- Comprehensive search string
- ERIC, Web of Science, Scopus, PsycINFO

Inclusion criteria

- 2007-2016
- Hochschulen
- auf Englisch
- Lehr- und Lernsettings
- Peer-reviewed
- Primär-, empirische Forschung
- Digitale Medien
- Student Engagement



Student Engagement

- Evidenz in 94% ($n = 229$) von mindestens einer Dimension des Engagements
 - Behaviourales Engagement 86%
 - Affektives Engagement 67%
 - Kognitives Engagement 56%

Top 5 Engagement und Disengagement Facetten

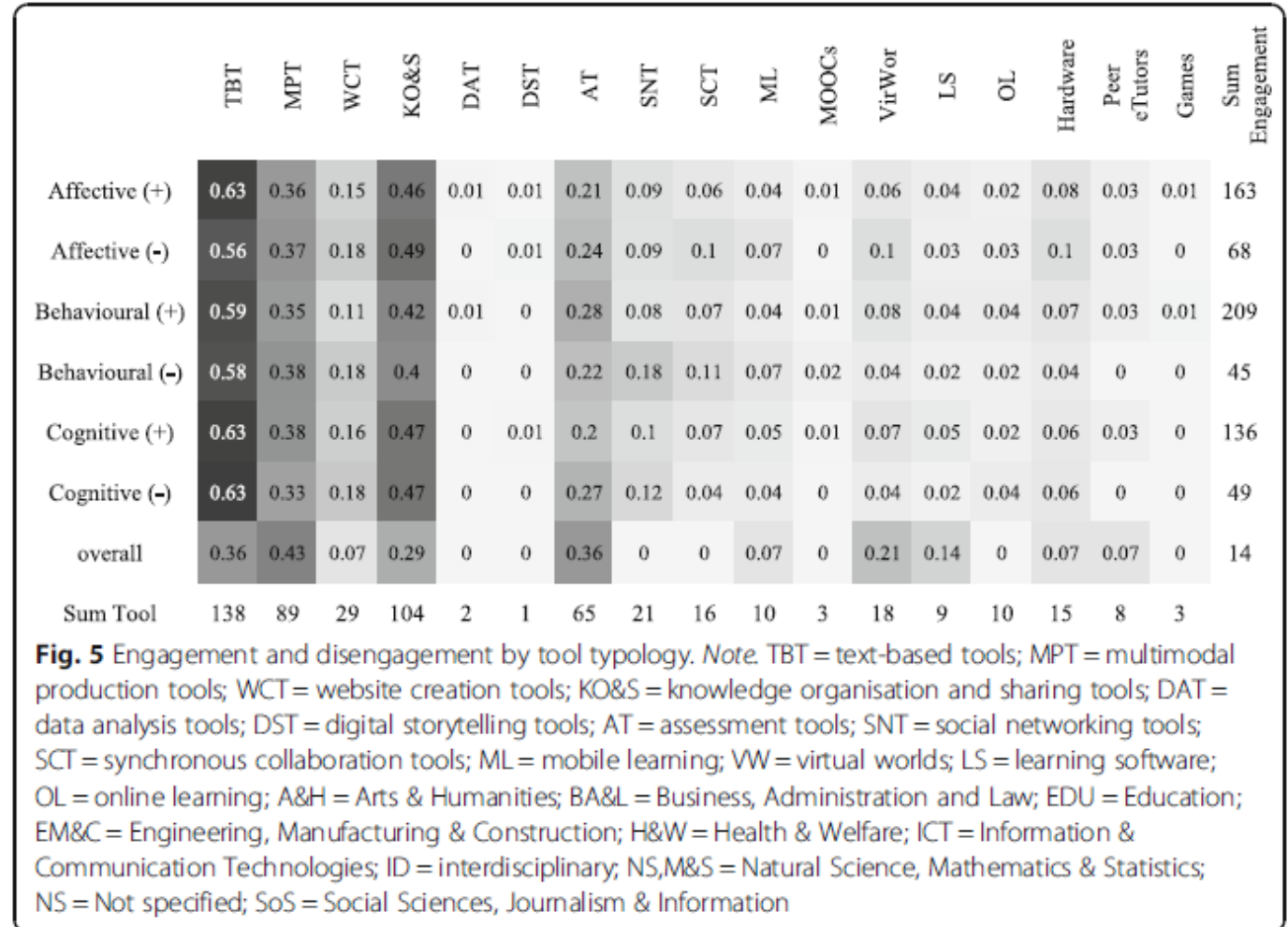
Engagement Facetten		
1	Beteiligung	49%
2	Erreichung (Achievement)	44%
3	Positive Interaktion mit Lehrern/Peers	41%
4	Vergnügen	23%
5	von Peers lernen	22%

Disengagement Facetten		
1	Frustration	14%
2	Widerspruch	8%
3	Enttäuschung	7%
4	unter Druck gesetzt	7%
5	Abneigung	7%

Digitale Medien

- Über 50 verschiedene Tools
- Top 3 Tool Kategorien beim Engagement:
 1. Text-based Tools
 2. Knowledge organisation und sharing Tools
 3. Multimodal production tools

Halt! Bis 2016!



Emergency remote teaching in Hochschulen während der Pandemie¹

Forschungsfragen

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?

Key Findings

Continent	N	%
Asien	78	27,7%
Europa	77	27,3%
Nordamerika	64	22,7%
Naher Osten	40	14,2%
Süd- und Mittelamerika	18	6,4%
Afrika	17	6,0%
Oceanien	6	2,1%

- Meist fokussiert auf undergraduates (46,1%)
- Health & Welfare (27,3%)
- Natural Science, Maths & Stats (24,1%)
- Education (16%)

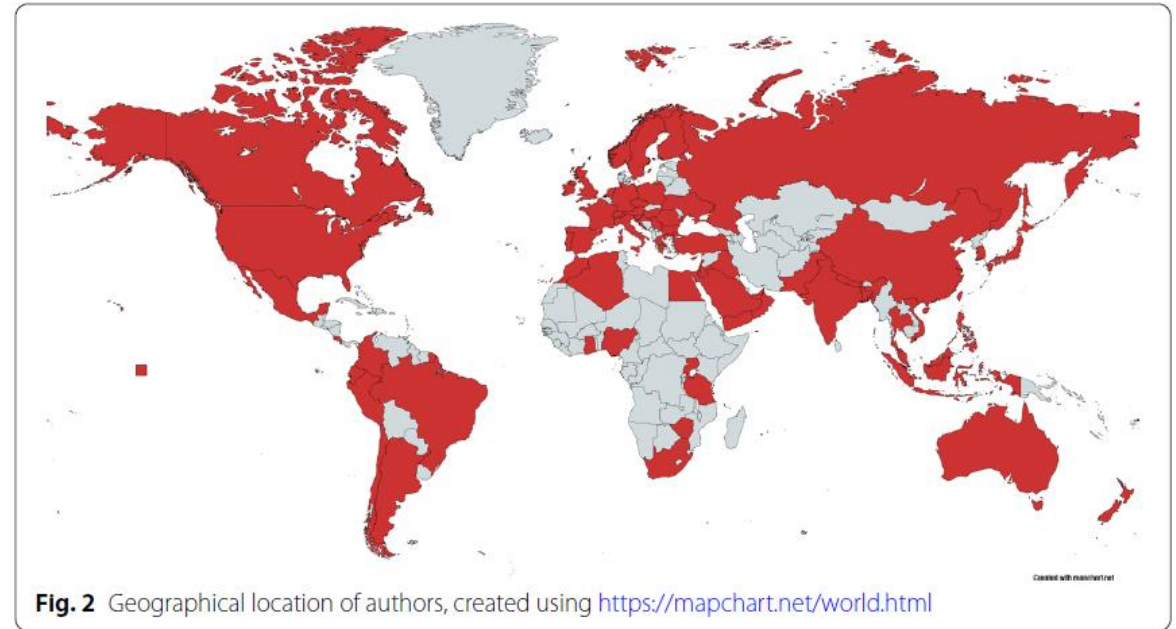


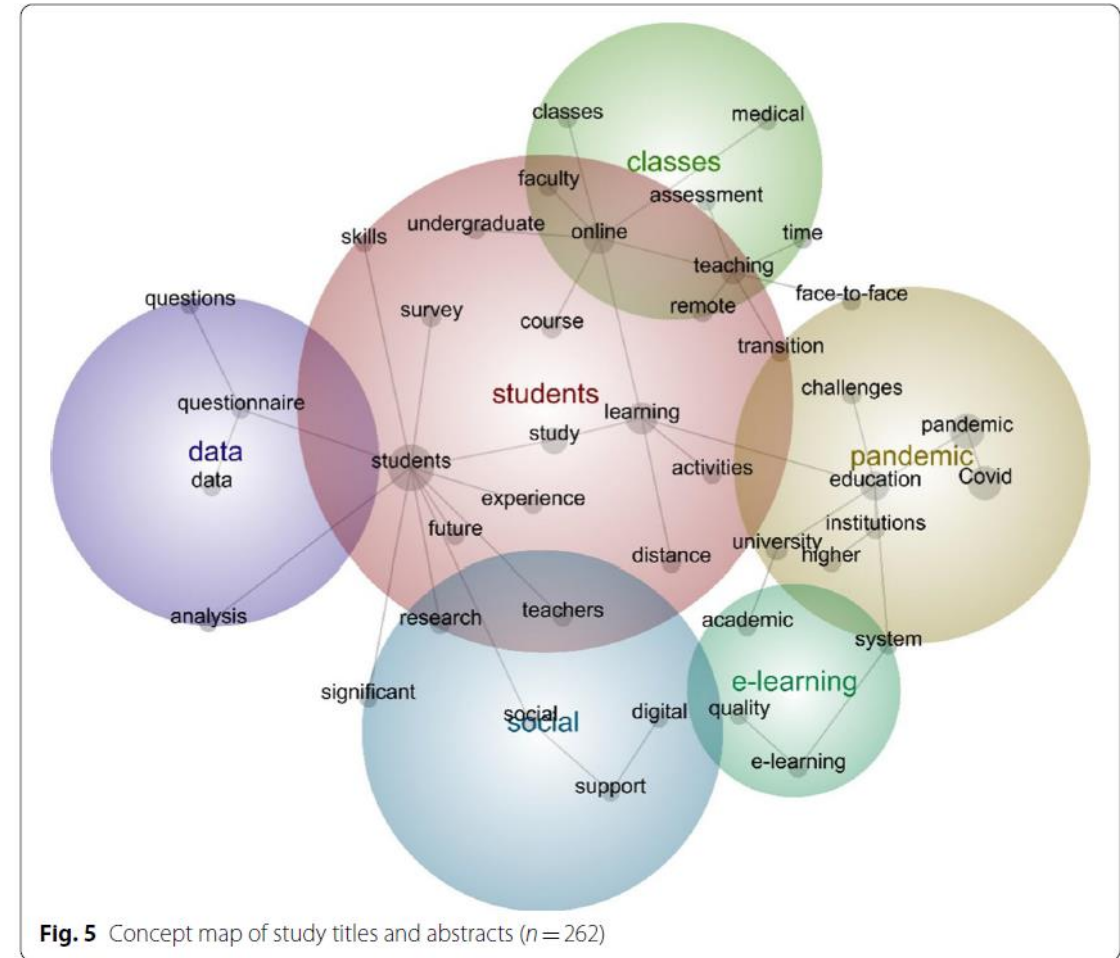
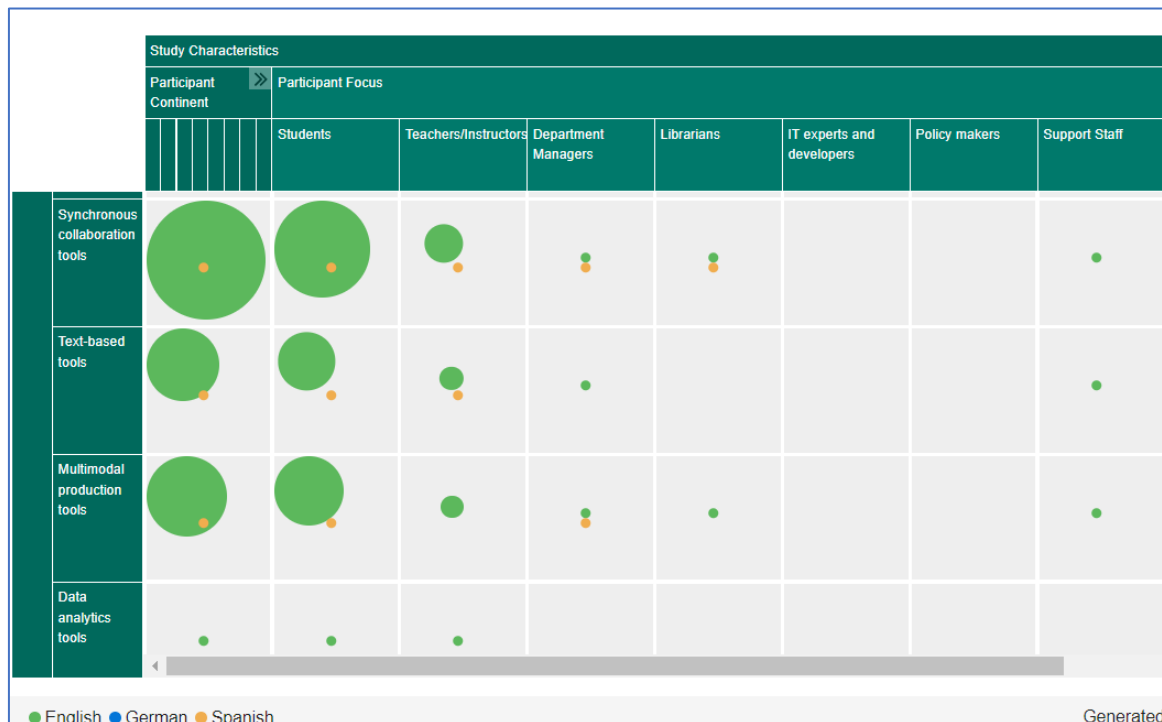
Table 7 Top five topic focus of studies ($n = 282$)

Area of focus	N studies	N studies [%]
Student perceptions of online learning	171	60.6
Impact of shift to online learning	84	29.8
Teacher perceptions of online learning	54	19.1
Students' technical equipment	38	13.5
Course redesign	31	11.0

Key findings

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

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Top 3 Tool Kategorien:







- Synchronous collaboration tools (51,8%)
- LMS (41,5%)
- Multimodal production tools (34,8%)

Was haben wir gelernt?

Chancen

- ✓ Assessment Tools, besonders Quizzes
- ✓ Lernmanagementsysteme mit kollaborativen Tools
- ✓ Breakout Räume mit Chat
- ✓ Live online Unterricht mit Zeit zum privaten Austausch
- ✓ Lehrergemachten Videos kombiniert mit anderen Videos

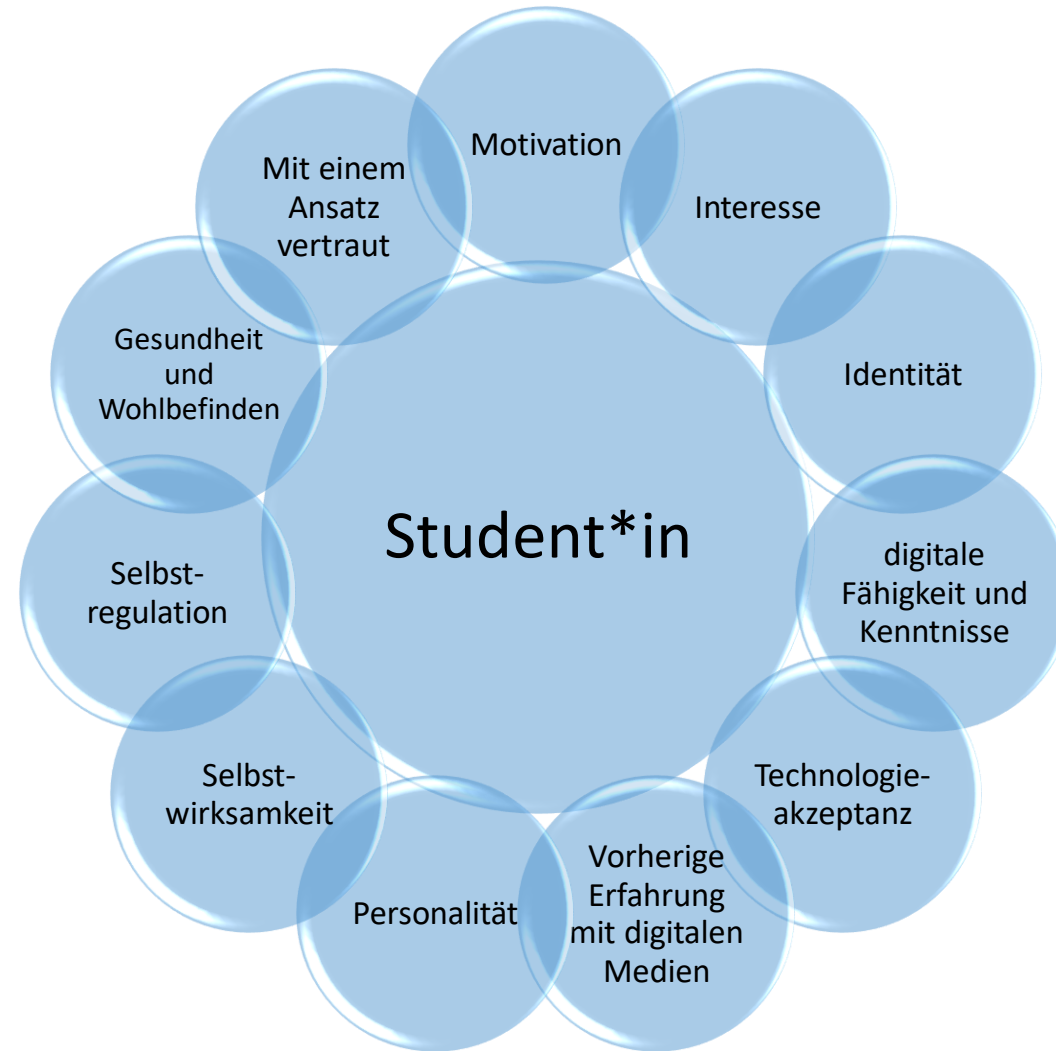
Herausforderungen

-  Nicht-Teilnahme am Online-Unterricht
-  Weniger Möglichkeiten für kollaborative Arbeit
-  Weniger Möglichkeiten um Fragen zu stellen
-  Schriftliche Erklärungen manchmal unklar
-  Arbeitsvolumen
-  Ablenkungen zu Hause

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Einflussfaktoren auf Engagement



Einflussfaktoren auf Engagement



Einflussfaktoren auf Engagement



Evaluation

Core questions

1 . Overall, I was satisfied with the quality of this course.

Affektives Engagement

2 . I have a clear idea of what is expected of me in this course.

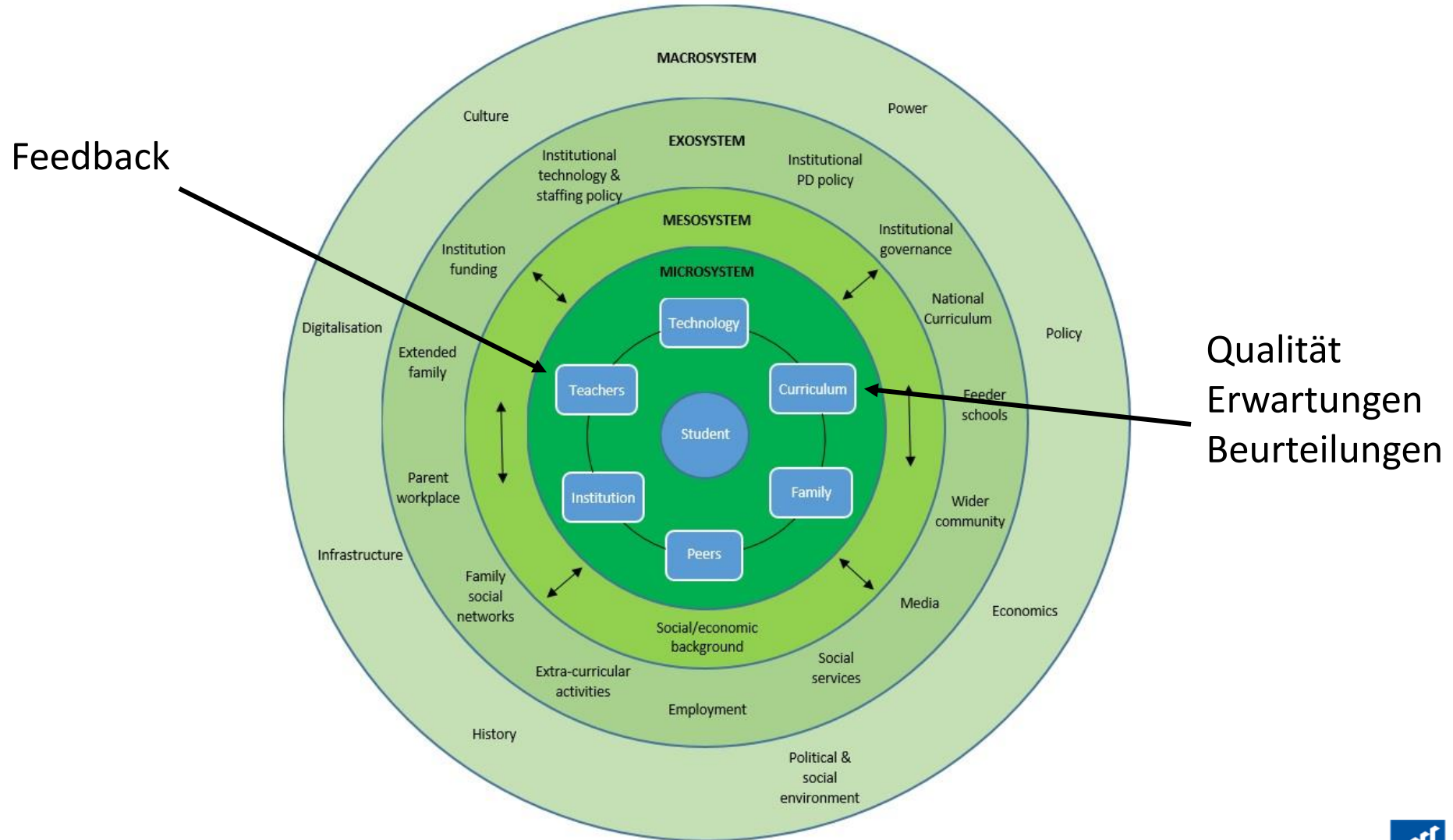
3 . The assessment items assisted my learning in this course

Kognitives Engagement

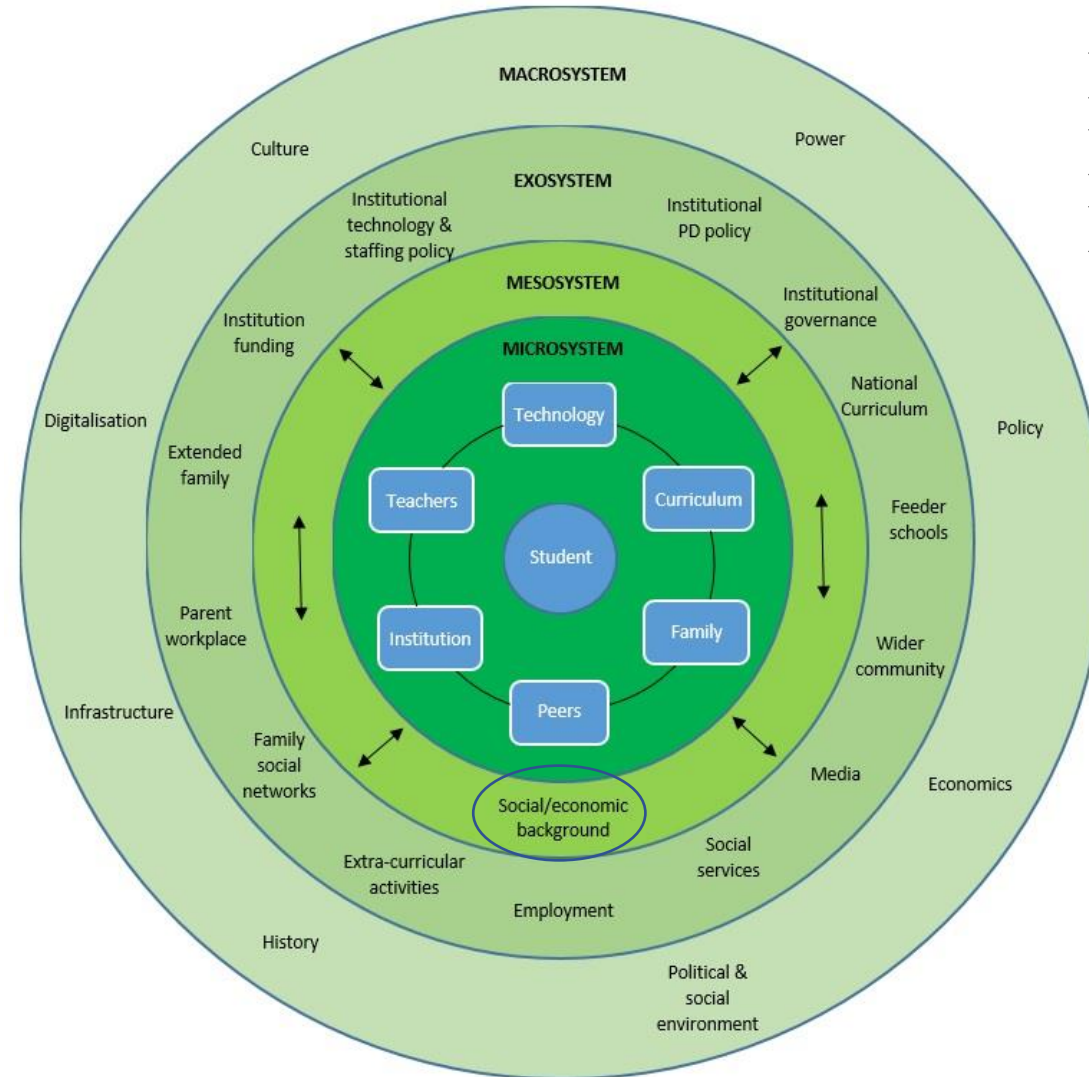
4 . I have received feedback that is constructive and helpful.

5 . The learnonline course site resources were of a high quality.

Evaluation



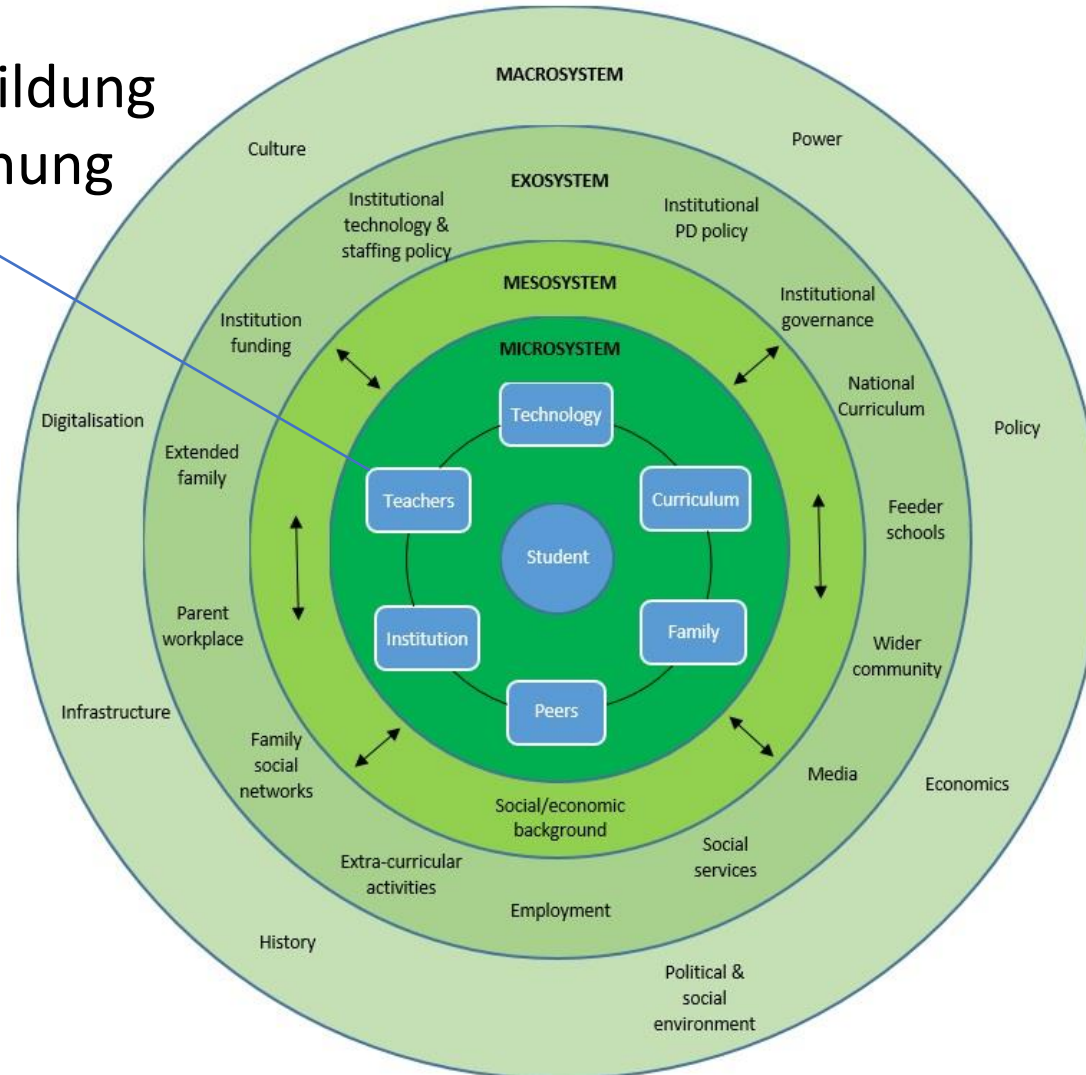
Implikationen für die Praxis



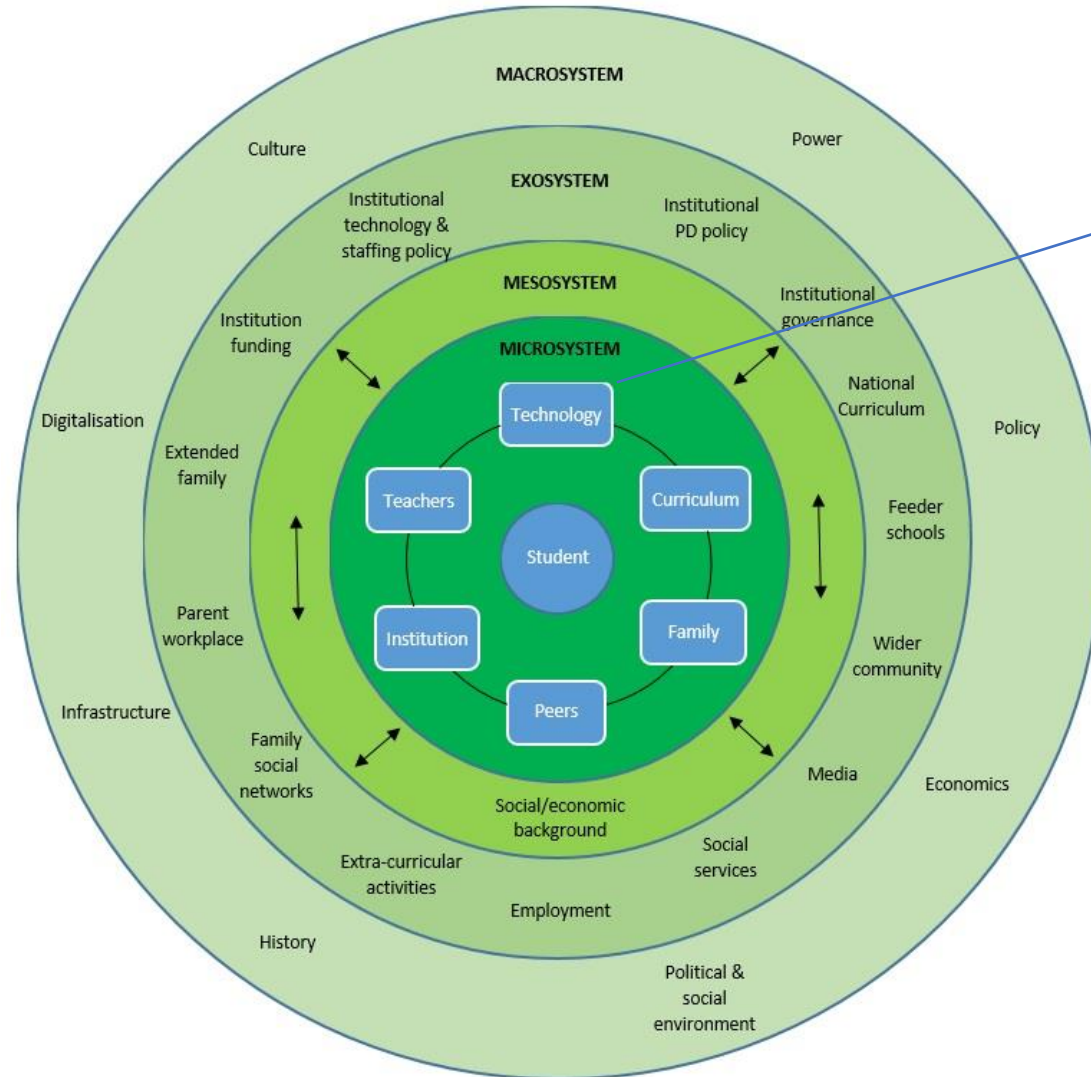
- Muss analysiert werden
- Leihgeräte
- mehrere Methoden

Implikationen für die Praxis

- Lehrer*innenweiterbildung
- Praktiker*innenforschung
- Flipped Feedback

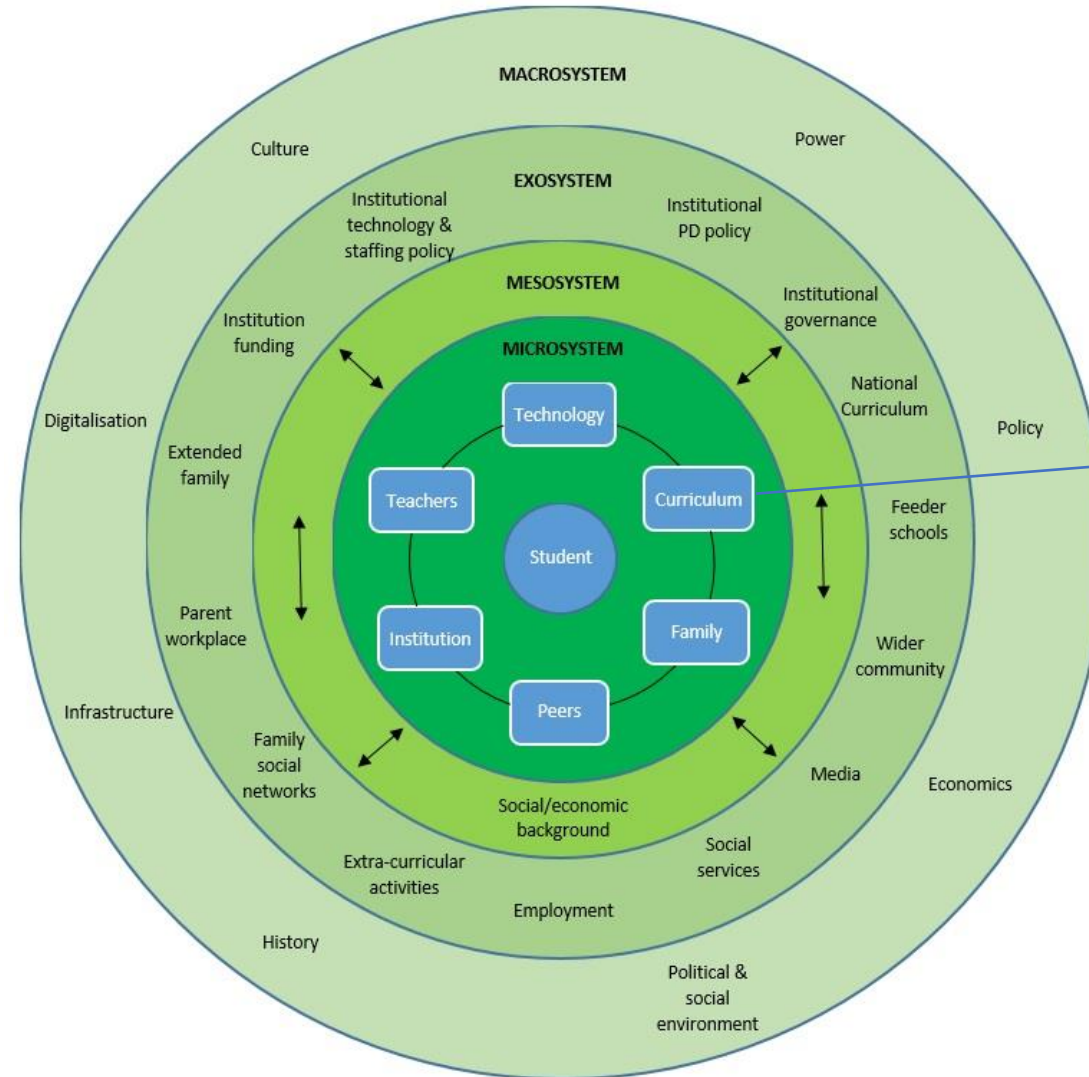


Implikationen für die Praxis



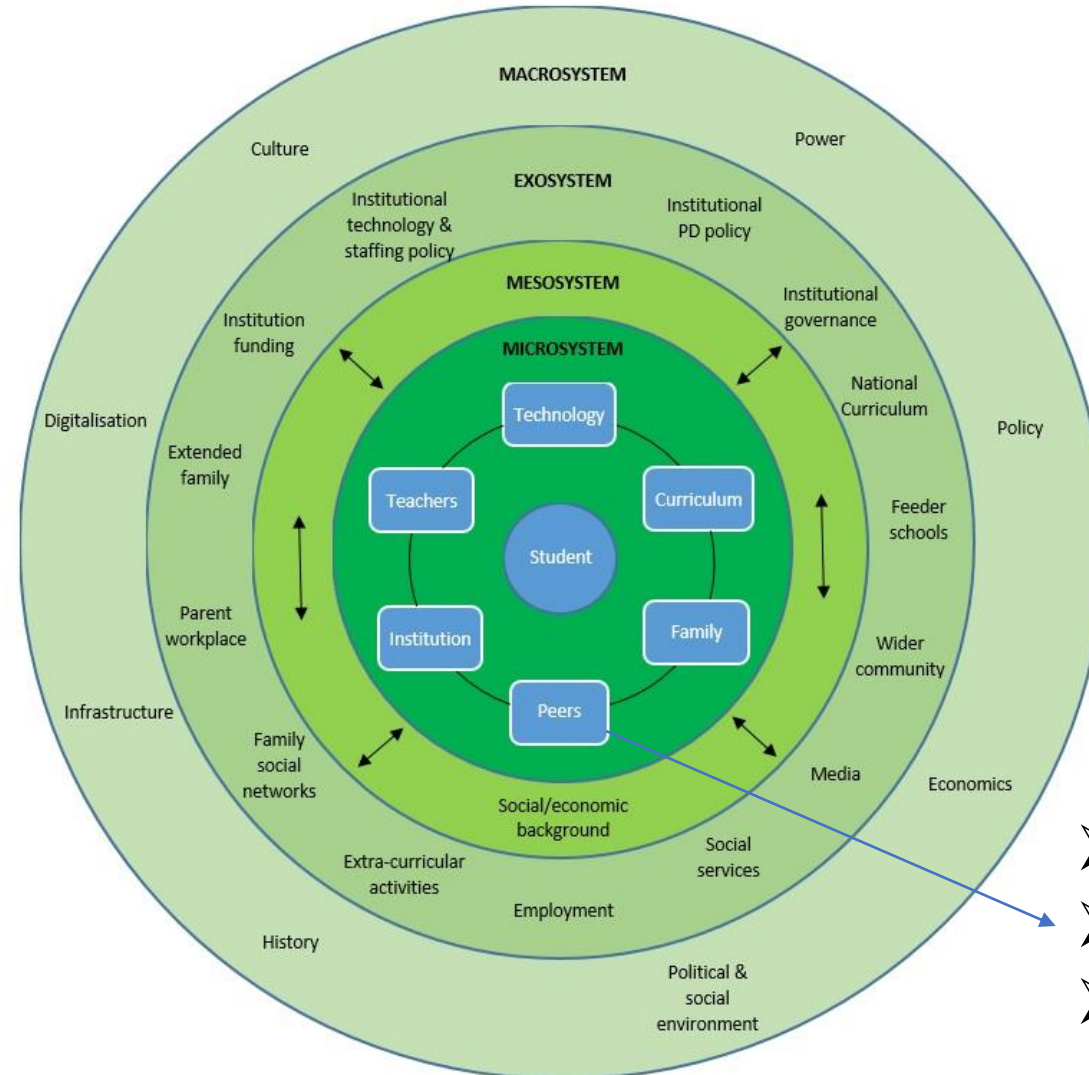
- Kollaborativ
- Eigene Videos (max. 6 Min)
- Eine Mischung
- Ein Thema pro Video

Implikationen für die Praxis



- Videos ausrichten
- Quiz einbetten
- Differenzierung

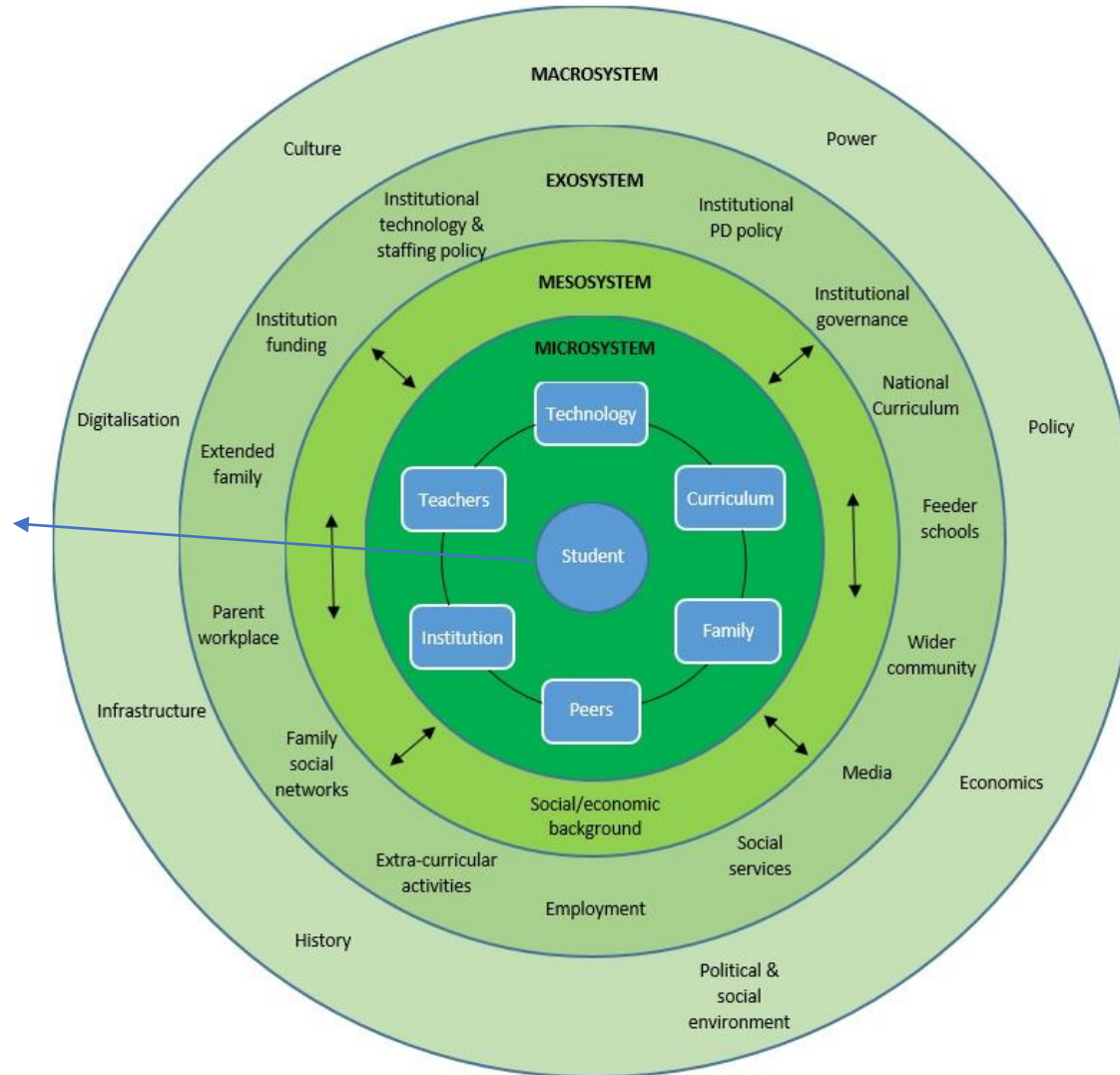
Implikationen für die Praxis



- Explizite Anweisung
- Ressourcen mitgestalten
- Peer-Bewertung

Implikationen für die Praxis

- Explizite Anleitung
- Einführungsphase
- eingespielte Routine
- Selbsteinschätzung





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