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Virtuelle Identitäten, Reale Beratung

Zur transformativen Rolle von Avataren und Künstlicher Intelligenz beim Beratungstraining in Virtual Reality

18. September 2025 | Nürnberg | Dominik Evangelou

Ausgangslage

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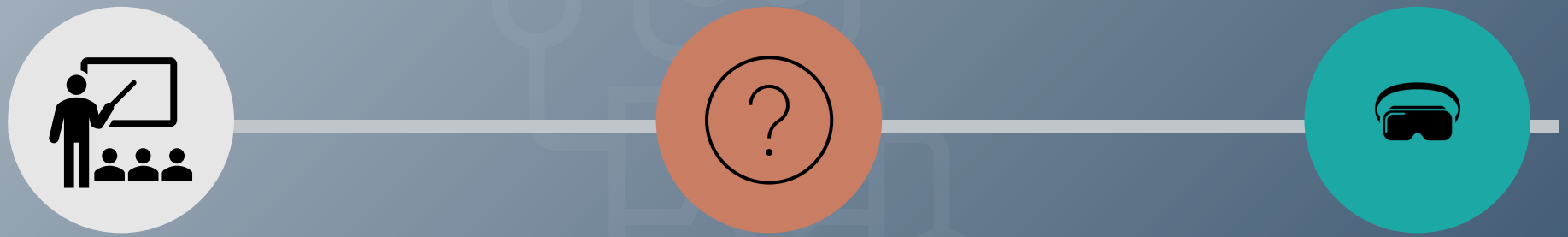


Status Quo

Problem

Lösung

Ausgangslage

(Kerres, 2024; Evangelou et al., 2024; Agboola Sogunro, 2005; Salas et al., 2009; Gerardi et al., 2010; Meyerbröker & Emmelkamp, 2010; Sitzmann, 2011; Schmid Mast et al., 2018; Laker & Powell, 2011)

Ausgangslage: Theoretischer Überblick

Die Rolle von Avataren

- Steigendes Interesse an Einsatz von Avataren (Chen & Yang, 2013; Hsiao & Chen, 2016)
- Avatare in HCI (Taylor, 2002; Nakamura, 2007)
  - Selbstdiskrepanz-Theorie (Higgins, 1987; Jin, 2012), Proteus-Effekt (Yee & Bailenson, 2007; Nowak & Fox, 2018)
- Anpassbarkeit (Yee & Bailenson, 2009)
  - Psychologische Effekte der Anpassung (Waltemate et al., 2018; Gonzalez-Franco et al., 2024)
- Avatare in VR
  - Bewegung durch Full-Body Tracking (McVeigh-Schultz et al., 2018; Freeman & Maloney, 2021)
  - Zusammenhang zwischen Körperpräsenz und virtueller Identität (Vasalou & Joinson, 2009; Birk et al., 2016)
  - Designfaktoren (Wu et al., 2023; Pauw et al., 2022)

Ausgangslage: Theoretischer Überblick

Debriefing

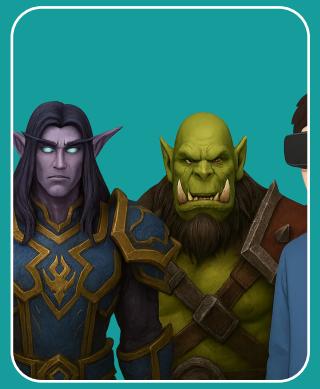
- Schlüsselmechanismus für das Lernen (Thatcher, 1990; Kriz & Saam, 2007)
- Zwei unterschiedliche Debriefing-Arten (e.g. Dufrene & Young, 2014; Luctkar-Flude et al., 2021; Favolise et al., 2024)
  - Moderiertes Debriefing (The Inascl Board Of Directors, 2011)
    Selbstdebriefing
  - Studien zeigen: Debriefing wirkt (Boet et al., 2011; Tilton, 2013; Tilton et al., 2015; Verkuyl et al., 2018)
- Spannungsfeld: Moderietes Debriefing & akademisierter Hochschullehre

Ausgangslage: Theoretischer Überblick

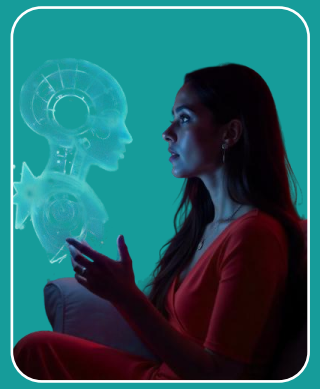
Chatbots als Debriefer

- Zunehmender Einsatz in Bildungskontexten (Hong, 2023; Chan & Hu, 2023)
- Können als Reflexionsmittel eingesetzt werden
  - Problem: Komplexität von Gesprächssituationen (Jin et al., 2024) Sycophancy (Sun & Wang, 2025; Malmqvist, 2024)
- Selbstverantwortung des Lernenden (Järvelä et al., 2023; Molenaar, 2022)
- Probleme beim „Prompten“ → Chatbot = Informationsquelle (Zamfirescu-Pereira et al., 2023; Klar, 2024)
- Chatbot als Debriefer hält seine Rolle
  - Lernende reflektieren Verhalten (Evangelou et al., 2025a)

Ausgangslage: Forschungsfragen

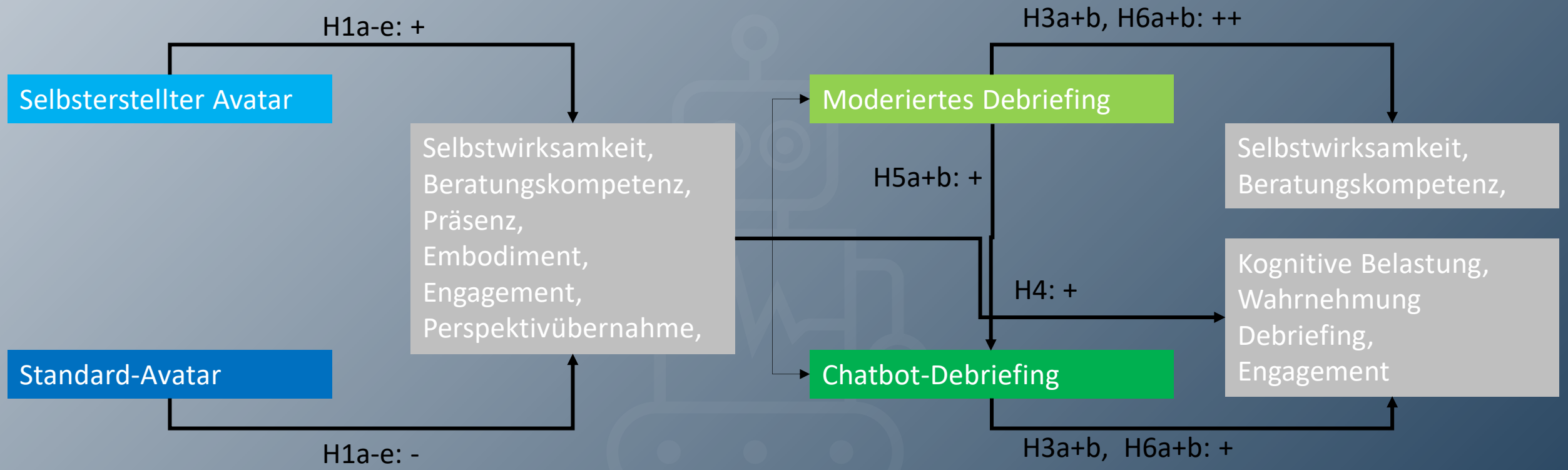


Hat das Erstellen eines eigenen Avatars als digitale Repräsentation eines Selbst positiven Einfluss auf Lerneffekte?



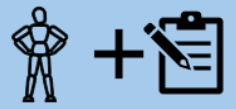
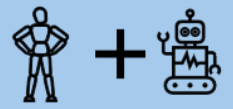
Inwieweit kann künstliche Intelligenz als adäquates Mittel für die Durchführung von Post-Simulations-Debriefings genutzt werden?

Hypothesen


H1a-e: +
Selbsterstellter Avatar
Selbstwirksamkeit,
Beratungskompetenz,
Präsenz,
Embodiment,
Engagement,
Perspektivübernahme,
Standard-Avatar
H1a-e: -
H3a+b, H6a+b: ++
Moderiertes Debriefing
Selbstwirksamkeit,
Beratungskompetenz,
H5a+b: +
H4: +
Kognitive Belastung,
Wahrnehmung
Debriefing,
Engagement
Chatbot-Debriefing
H3a+b, H6a+b: +

Forschungsdesign: Pilotstudie

Forschungsdesign: Pilotstudie

Eigener Avatar + Angeleitetes, strukturiertes Debriefing 	Eigener Avatar + KI-geleitetes Debriefing 
Kein eigener Avatar + Angeleitetes, strukturiertes Debriefing 	Kein eigener Avatar + KI-geleitetes Debriefing 

Forschungsdesign: Pilotstudie

Messzeitpunkt I	VR-Simulation	Messzeitpunkt II	Debriefing	Messzeitpunkt III
Briefing, Biografische Daten, Vorerfahrungen, Selbstwirksamkeit, Beratungskompetenz		Selbstwirksamkeit, Beratungskompetenz, Embodiment, Präsenz, Kognitive Belastung, Engagement		Selbstwirksamkeit, Beratungskompetenz, Kognitive Belastung, Engagement, Debriefing
				

Datenanalyse: Pilotstudie

Datenanalyse: Pilotstudie

45 Studierende

- 🗣️ + 👨‍💼 – 11
- 🤖 + 👨‍💼 – 12
- 🗣️ + ~~👨‍💼~~ – 12
- 🤖 + ~~👨‍💼~~ – 10

age *M* = 22; *SD* = 8.7

39 weiblich, 6 männlich

Ergebnisse

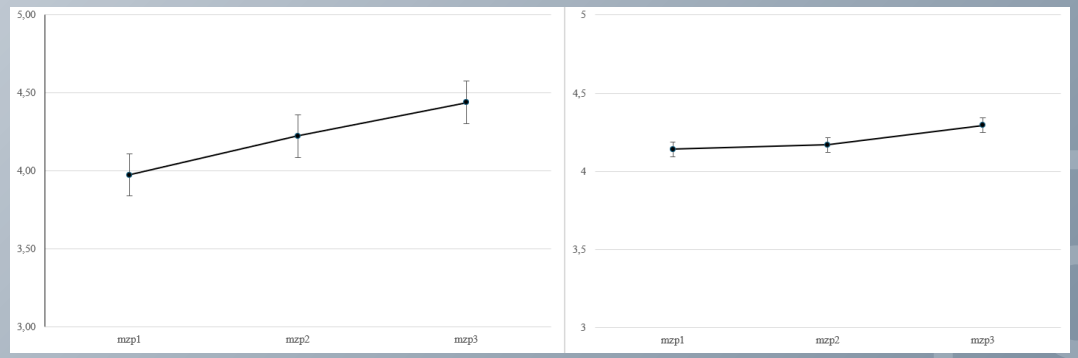
Datenanalyse: Avatar

	Min	Md	Max	M	SD	α
Self-efficacy (t1)	2.38	4.1	5.75	4.1	0.82	.89
Self-efficacy (t2)	1.5	4.13	5.75	4.2	0.91	.92
Counseling competence (t1)	3.86	5.4	7.29	5.4	0.83	.94
Counseling competence (t2)	2.23	5.59	7.52	5.6	1.14	.96
Embodiment	1.0	3.83	7.0	3.83	1.32	.93
Perspective-Taking	2.17	5.5	7.0	5.34	1.06	.9
Engagement	2.0	4.25	5.0	4.12	0.86	.92
Presence	1.13	3.87	5.8	3.85	1.04	.94

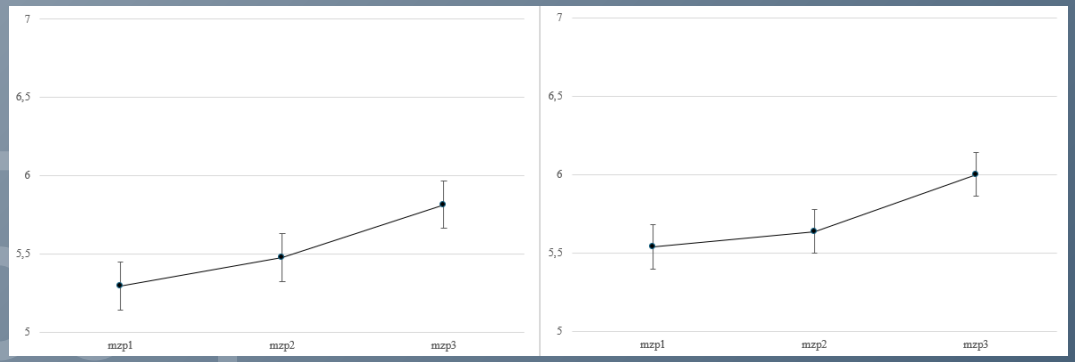
$F(1,43) = 0.26$, $p = .615$ → Selbstwirksamkeit
$F(1,43) = 0.32$, $p = .574$ → Beratungskompetenz
$t(42.99) = 0.72$, $p = .476$ → Präsenz
$t(39.52) = 0.26$, $p = .796$ → Embodiment
$W = 301.5$, $p = .274$ → Perspektivübernahme
$W = 268.5$, $p = .728$ → Engagement

(Evangelou et al., 2025b, in press)

Datenanalyse: Debriefing



Average increase in self-efficacy for moderated debriefing (left) and self-debriefing (right). While the original Likert scale ranged from 1 to 6, only the relevant range from 3 to 5 is displayed here (mzp = measurement point).



Average increase in counseling competence for moderated debriefing (left) and self-debriefing (right). While the original Likert scale ranged from 1 to 8, only the relevant range from 5 to 7 is displayed here (mzp = measurement point).

$t(44) = 3.47$, $p < .001$ → MZP 1 zu MZP3
$t(44) = 3.94$, $p < .0001$ → MZP 2 zu MZP 3

$t(44) = 4.27$, $p < .001$ → MZP 1 zu MZP 3
$t(44) = 5.56$, $p < .001$ → MZP 2 zu MZP 3

$F(1,43) = 0.001$, $p = .971$ → Selbstwirksamkeit
$F(1,43) = 0.46$, $p = .500$ → Beratungskompetenz

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(Evangelou et al., 2025c, submitted)

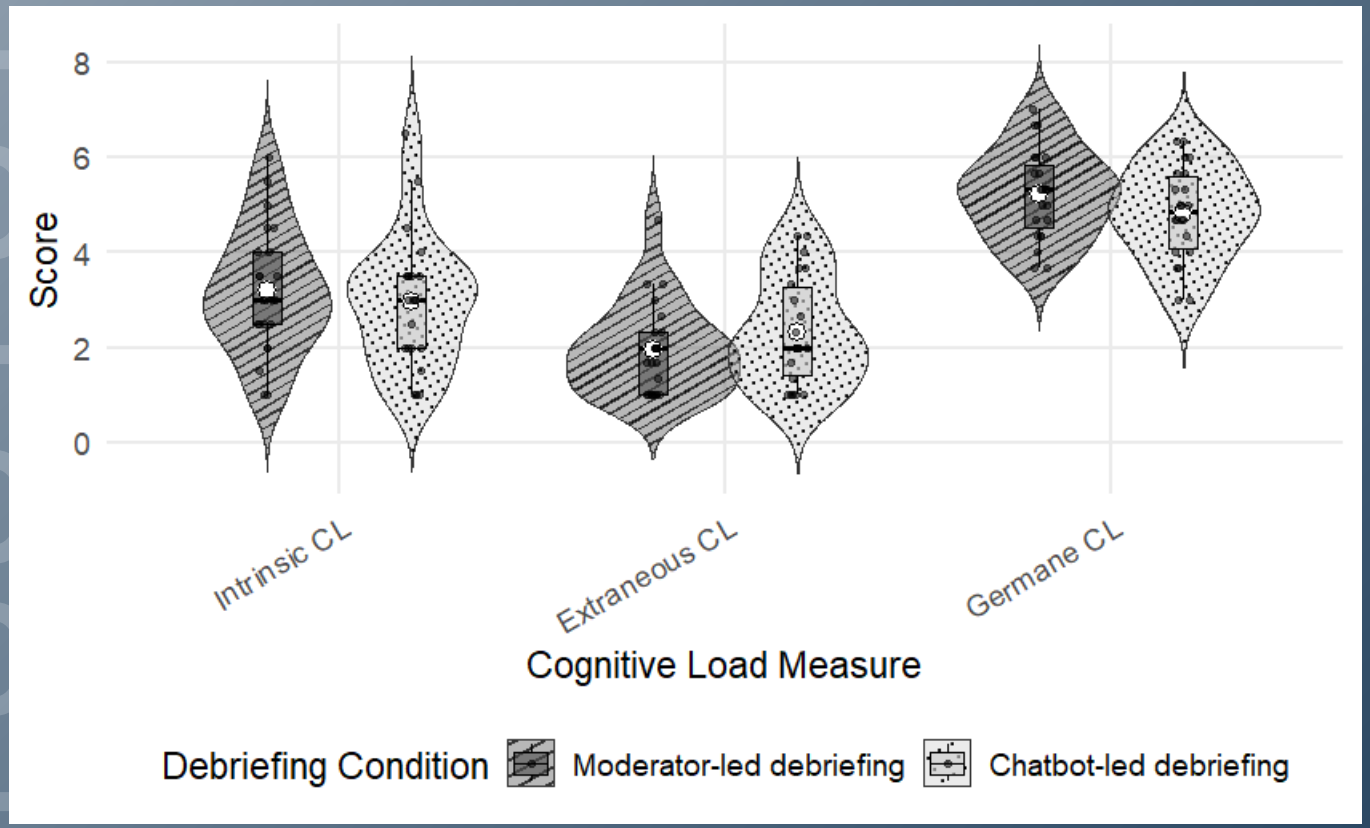
Datenanalyse: Debriefing

$t(39.806) = 3.68$, $p = .0007$

(Evangelou et al., 2025c, submitted)

Datenanalyse: Cognitive Load

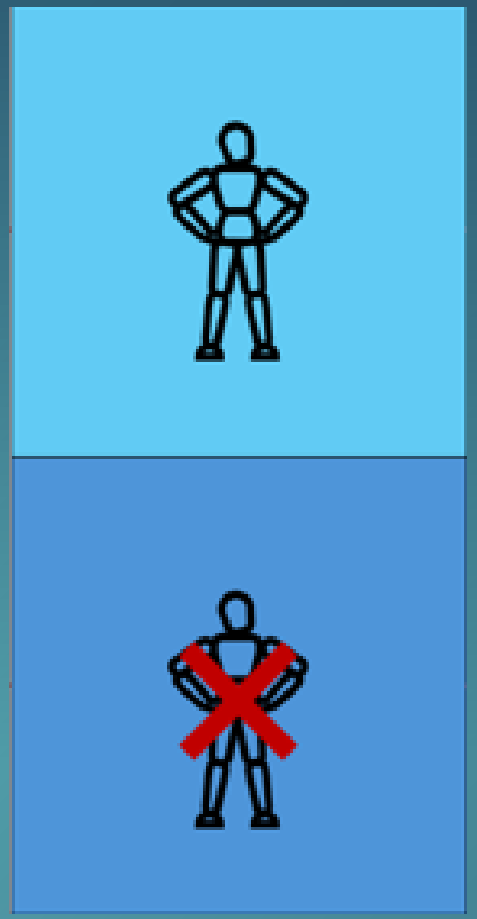
t(43) = 0.59, p = .557 → ICL
U = 204, p = .267 → ECL
t(43) = 1.40, p = .169 → GCL



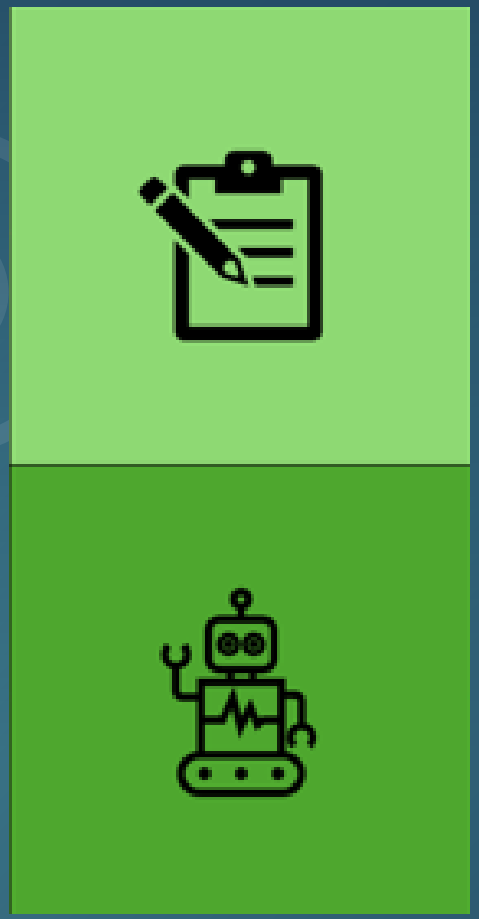
(Evangelou et al., 2025d, submitted)

Fazit

Fazit

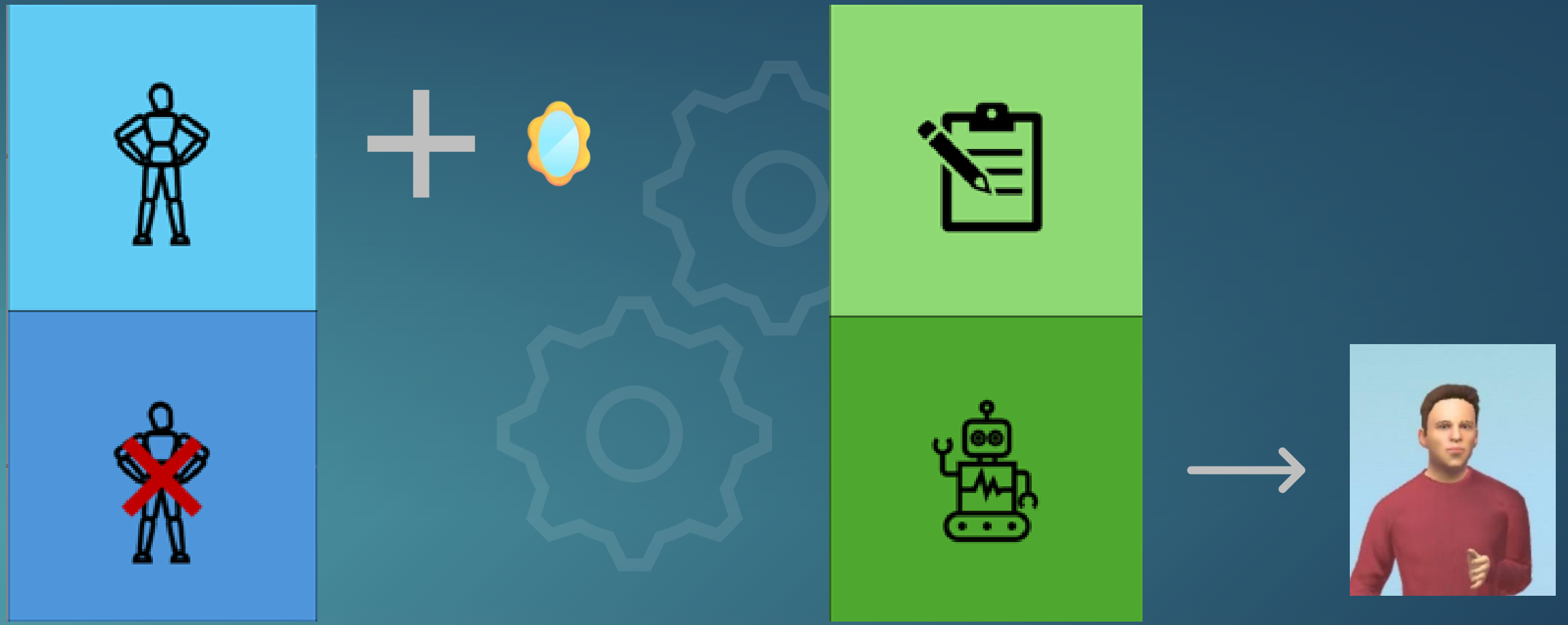


Relevanz eines Avatars in *high fidelity Simulation*



KI als adäquates Mittel

Fazit



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(Henrikson et al., 2025)

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Vielen Dank für die Aufmerksamkeit

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