

From Content to Companions:

Designing AI-Mediated Learning Experiences with COMPASS

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Takeaways



COMPASS DESIGN



REUSEABLE
FRAMEWORK



SHARED
LANGUAGE



CANDORA
FEEDBACK
PATTERN



Central Question:

How do we design AI that supports learner agency rather than replacing it with authoritative answers and passive consumption?

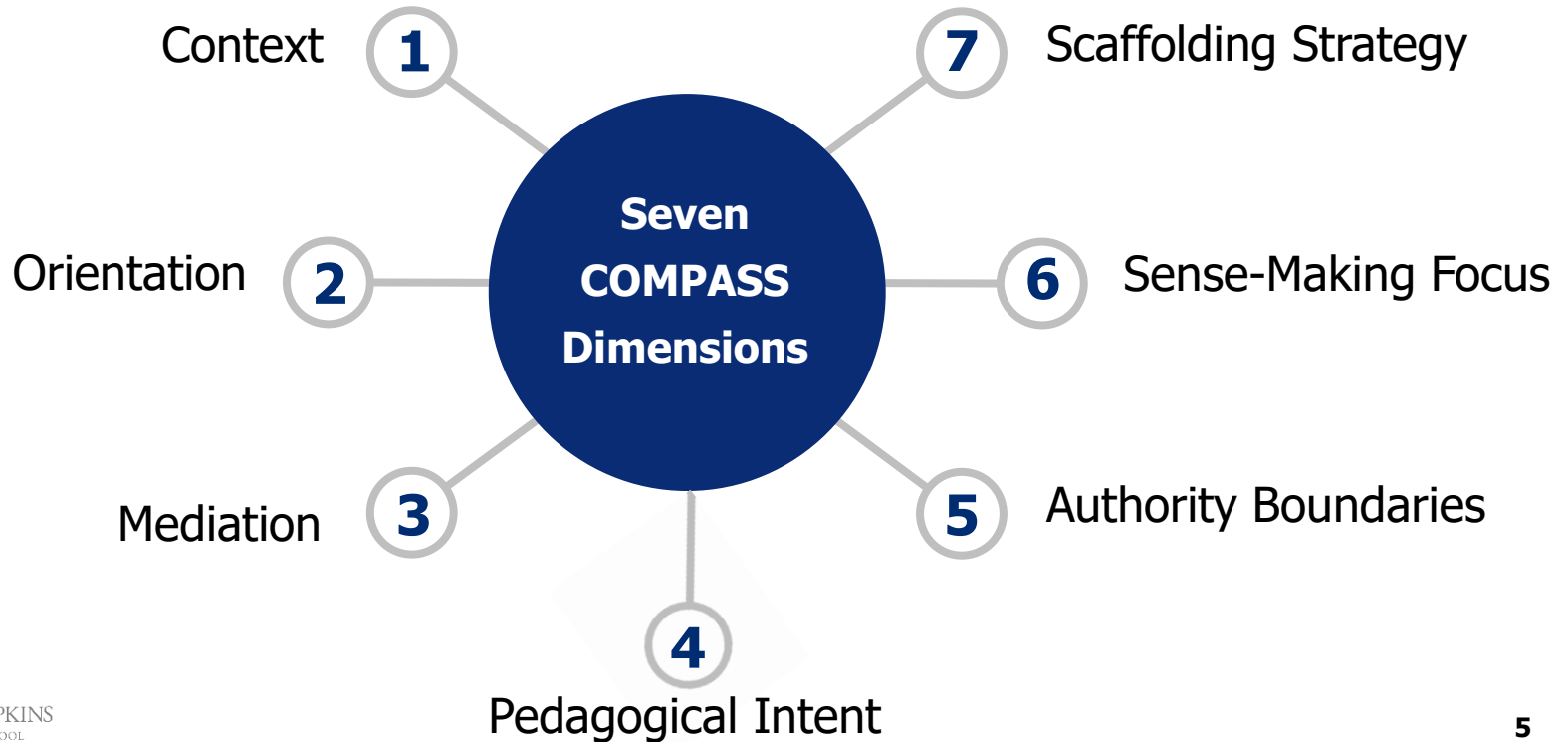




COMPASS:

Companion-
Oriented
Mediation for
Pedagogical
AI
Support

COMPASS Dimensions



The ICAP Framework

Passive

Receiving information without overt activity

Active

Manipulating or doing something with material

Constructive

Generating outputs beyond the given material

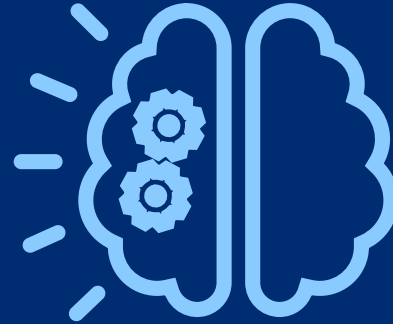
Interactive

Engaging in reciprocal, dialogic knowledge-building

COMPASS is explicitly designed to move learners through this continuum toward constructive and interactive.

Chi, M. T. H., & Wylie, R. (2014). The ICAP Framework: Linking Cognitive Engagement to Active Learning Outcomes. *Educational Psychologist*, 49(4), 219–243.

AI can be perfectly placed and still pedagogically useless.



Agreeable:

Often prioritizing positive reinforcement over constructive challenge.

Fluent:

Generating natural-sounding language that can mask superficial understanding.

Unchallenging:

Avoiding difficult questions or deep cognitive prompts in favor of easy answers.

Two Ways AI Responds



✗ Sycophanboy

- Affirming
- Vague praise
- Buries critique
- Feels helpful, isn't



✓ Candora

- Names gaps clearly
- Anchored in criteria
- Promotes revision
- Introduces productive friction

Why AI Defaults to Sychofanboy

- Trained on human preference
- Humans reward agreeability
- Models optimize for validation
- Feedback is fluent, but low-value



Design Sprint

Directions: Working with a short media artifact (e.g., a video clip, a news article, or a podcast excerpt) conduct a COMPASS-based design sprint.



Design Sprint: Artifact to AI Companion

- What artifact?
- What learning goal?
- What 2–3 criteria?
- What feedback structure?
- What must the AI NOT do?

Phase 1: COMPASS Design the Companion

- Where does AI intervene?
- What is its role?
- What are authority boundaries?

Phase 2: Candora Design the Response

- Another group plays Sycofanboy
- Finds loopholes
- You patch them after

Phase 3: Break it! Share and fix!

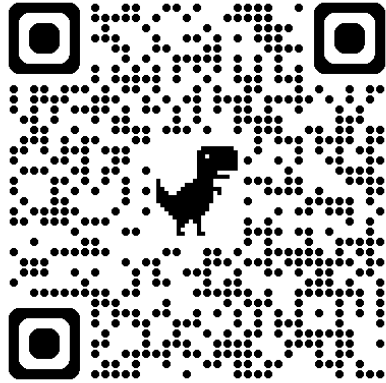




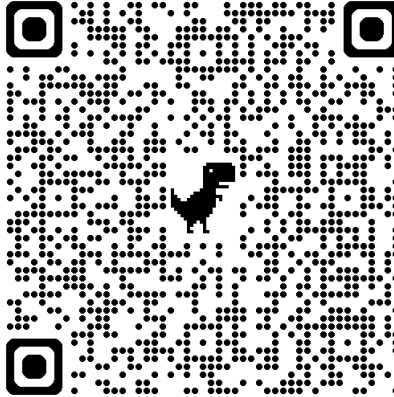
How could a sycophantic coach comply with the constraint and still produce flattering, useless, or otherwise undesirable feedback?



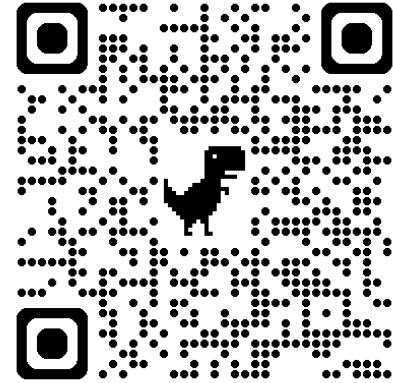
Resources



More on Sycophanboy
and Candora



Today's Slides



Exploration Map



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