

Paper in a Day 2025

Defining and Measuring Cognition in Experience Sampling

Need of a Unified Framework

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Our plan

Challenges
identified during
Hackathon last year

Topic

Challenge 1: Lack of a unified definition of cognition in ESM studies. Cognition encompasses many facets, which can be measured subjectively, objectively, or via proxies (e.g., typing speed).

Challenge 2: Differences between lab-based and real-world cognitive assessments.

Challenge 3: Technical challenges and prerequisites for measuring cognition in ESM.

Challenge 4: Lack of standardization across studies, labs, and countries.

Challenge 5: Ensuring compliance and motivation in cognitive ESM studies.

Challenge 6: Need for statistical models accounting for flexible cognitive assessments. (Worth adding something on the need for norm values?)

Challenge 7: Identifying additional predictors influencing cognition in ESM studies.

Challenge 8: Differences in populations to which they are applied (need for adaptive tests to overcome ceiling/floor effects?)

What did we do?

- Write a brief commentary on these challenges: Definition of Challenge, Current State, (Future Directions)
- Cognition in the Wild: Advancement in Ecological Momentary
 Assessments DIGITAL HEALTH

Next

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Summarizing Results from PiaD session Merging documents, writing short conclusion

Sending final manuscript to all group members
Getting final input until end of November 2025

Submission
Planned in December 2025

Revision etc.