

Diversity in mental models to collaborate on sustainability challenges

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Project description

Is collaborating on a sustainability problem easier with people who agree with you, or do you need diverse views to solve such issues? Previous research has both suggested that different perceptions bring you closer to the true nature of the system (Aminpour et al., 2020), but may also obstruct collaborations (Mathieu et al., 2000).

In this project, we will explore to what extent it is beneficial when actors have similar perceptions of the system they are acting in, or whether they should have diverse perspectives to foster successful collaborations. We would like to explore similarities in mental models, or internal representations of the external world, using a novel tool for mapping mental models: [M-Tool](#) (van den Broek et al., 2021). In an experimental setting, actors with similar or different mental models will collaborate on a sustainability challenge in a serious game and their success in addressing the challenge will be analyzed to determine whether more diverse or similar mental models produced better outcomes.

For this project, we are looking for a student-assistant who can assist with collecting and analyzing the data. The assistant will be able to conduct all tasks remotely if needed.

Job requirements

We are looking for a motivated student who wants to gain experience in conducting research in the field of environmental psychology and sustainability. The applicant should have good communication skills and be a team player. Some aptitude for quantitative approaches is welcome.

References

- Aminpour, P., Gray, S. A., Jetter, A. J., Introne, J. E., Singer, A., & Arlinghaus, R. (2020). Wisdom of stakeholder crowds in complex social–ecological systems. *Nature Sustainability*, 3(3), 191–199. <https://doi.org/10.1038/s41893-019-0467-z>
- Mathieu, J. E., Heffner, T. S., Goodwin, G. F., Salas, E., & Cannon-Bowers, J. A. (2000). The influence of shared mental models on team process and performance. *The Journal of Applied Psychology*, 85(2), 273–283. <https://doi.org/10.1037/0021-9010.85.2.273>
- van den Broek, K. L., Klein, S. A., Luomba, J., & Fischer, H. (2021). Introducing M-Tool: A standardised and inclusive mental model mapping tool. *System Dynamics Review*, 37(4), 346–355. <https://doi.org/10.1002/sdr.1698>