Education and climate action: Climate Fresk as a Change Management Intervention at Higher Education Institutions

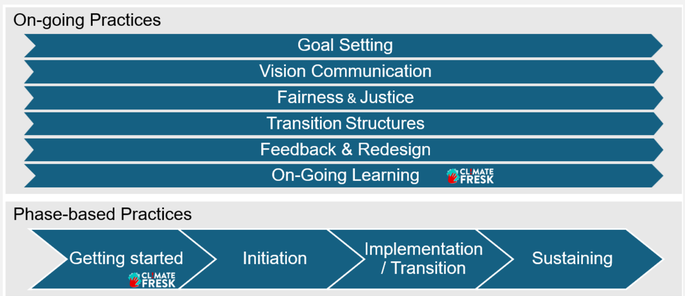
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Integrating Housing, Urban and Transport Planning, Environment, Climate Action, Circular Economy and Health for Healthier Urban Living

1. Background and methodology

Theoretical background:
Evidence-based change management
Rousseau/ten Have (2022)
(see illustration)



Research context:
- Higher education institutions in the transformation to climate neutrality
- Workshop Climate Fresk is used as a change management intervention

Methodology: Mixed-methods approach
- Qualitative information is gathered during the intervention phase
- Quantitative data is collected afterwards with an online survey
- Convenience sample at different institutions, n=120

2. Climate Fresk: From climate education to organisational transformation?

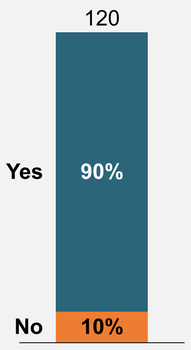
- IPCC-based collaborative climate workshop with > 2.3 million participants worldwide, used in educational institutions, companies, and public settings
- Research mainly focuses on educational outcomes; evidence on organisational transformation remains limited

Is Climate Fresk an appropriate and effective change management intervention for supporting climate neutrality transformations in higher education institutions?

- Appropriateness operationalised as recommendation and perceived learning
- Effectiveness operationalised as perceived empowerment for climate action

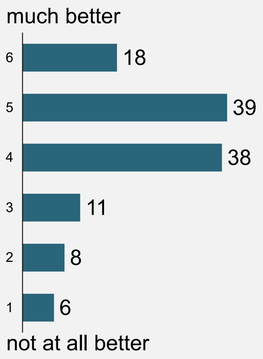
3. Results: 90% recommendation rate, significant learning, but empowerment only moderate

Recommendation 90%



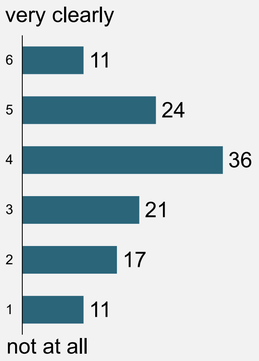
Would recommend workshop

Learning M = 4.25



Better understanding of the causes and consequences of climate change

Empowerment M = 3.65



Feeling more capable of taking action

Scale: Six-point end anchored scale; unlabeled intermediate response categories; coded 1-6 for analysis; labels shown here for readability

Learning: Participants report significantly more positively (M = 4.25) than the theoretical midpoint 3.5 of the scale, confirmed with the parametric one-sample t-test with highly significant results ($p < .001$).

Empowerment: Moderate (M = 3.65); strong positive correlation of learning and empowerment ($r = .689$, $p < .001$, $n = 120$)

Limitations: Post-intervention design, self-reported perceived learning and empowerment, convenience sampling, empowerment outcomes may depend on facilitator-specific implementation

4. Teaching staff reported highest learning and empowerment – raising interest of relevant stakeholders remains a key challenge

People interested in the topic and teaching staff report best effects

	Number	Learning (mean)	Empowerment (mean)
Participation reason			
Interest	**36**	**4.72**	**4.17**
Both	35	4.51	3.89
Obligation	49	3.71	3.10
Status groups			
Students	83	4.05	3.43
Teaching staff	**15**	**4.93**	**4.40**
Admin. staff	9	4.56	3.89
Other	13	4.31	3.85
Total	**120**	**4.25**	**3.65**

Comments welcome: Why did teaching staff report the strongest learning and empowerment effects?

Key take-aways:

- Climate Fresk is an appropriate intervention at higher education institutions as it provides **significant learning** effects and is **highly recommended** by participants **across the whole organisation**
- Effectiveness for **empowerment is moderate**, embedding in a broader change strategy necessary
- Transfer to urban contexts, particularly decision-makers, is possible and recommended









Selected References:
Rousseau, D. M., & Ten Have, S. (2022). Evidence-based change management.
La Fresque du Climat. (2026). https://climatefresk.org/world/
Hognon, L., Teran-Escobar, C., Bernard, P., Chevance, G., & Caille, P. (2026). The Climate Fresk as a global case study.

AI disclosure: Microsoft Copilot (enterprise version) was used for language editing and poster feedback.

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