Heuristics/principles for transdisciplinary research

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Outline

• Understanding of transdisciplinary research
• Why heuristics/principles?
• Examples
• Conclusion
Definition from a researcher’s perspective

Transdisciplinary research requires framing, analysing and processing problems such as

a) the complexity of problems is grasped,

b) the diversity of life-world and scientific perceptions of problems is taken into account,

c) abstract and case-specific knowledge is linked, and

d) knowledge and practices that promote what is perceived to be the common good are developed.

Participatory research and collaboration between disciplines are the means of meeting requirements a)-d) in the research process

(Pohl and Hirsch Hadorn 2007: 30)
Transdisciplinary research process

(Jahn et al. 2012, Pohl 2014)
Map of Purposes

**Encyclopaedic understanding**
- To integrate different disciplines’ bodies of knowledge
- To develop an understanding that accounts for complexity and diversity
- What is the purpose of inter- and transdisciplinary research?

**Holistic understanding**
- To integrate scientific and extra-scientific bodies of knowledge

**Problem solving**
- To generate practical solutions that are implemented

**Reflection-in-action**
- To consider risks and unintended consequences of solutions
- To develop solutions to societal problems that account for complexity and diversity

[www.transdisciplinarity.ch/e/transdisciplinarity/purpose](http://www.transdisciplinarity.ch/e/transdisciplinarity/purpose)
Why heuristics/principles?

See, for instance, Tapio and Huutoniemi (2014)

(Herweg et al. 2012)
Heuristics/principles for problem framing

Start by identifying and elaborating different disciplines’ and actors’ problem framings!

For instance, jointly develop hypotheses

(Burkhardt-Holm 2008)
Heuristics/Principles for integration

Explore integration as an on-going process that can take various forms!

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<th>Common group learning</th>
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<th>Integration by sub-group or individual</th>
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(Pohl et al. 2008)
For instance, see …

Matthias Bergmann, Thomas Jahn, Tobias Knobloch, Wolfgang Krohn, Christian Pohl, Engelbert Schramm

METHODS FOR TRANSDISCIPLINARY RESEARCH
A Primer for Practice

(Jeanine Reutemann)
Heuristics/principles for bringing results to fruition

Identify the state of knowledge in science as detailed as the state of problem solving in society!

(Wuelser et al. 2012)
Heuristics/principles for bringing results to fruition

Plan and implement collaboration in a functional dynamic way!

(Stauffacher et al. 2008, Krütli et al. 2010)
Overall principle of transdisciplinary research

Don’t look for "all things to all people", but for a project’s particular transdisciplinary potential!

(Karl Herweg, University of Bern)
References


References


Transdisciplinary research process (in heaven)

(Pohl and Hirsch Hadorn 2008)