

Early Career Scientist Transdisciplinary Workshop, 6-7 May 2019

University of Bern (Vetsuisse faculty)

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Context

Thirty participants from seven European countries met in Bern for two days in order to experience methods of co-producing knowledge in heterogeneous groups. The workshop was initiated and organized by PhD-students of the Vetsuisse faculty and focussed on the challenge of “sustainable food production”, which covered all participating scientific disciplines.

Purpose

- to learn some interdisciplinary and transdisciplinary methods hands-on
- to jointly envisage an interdisciplinary and transdisciplinary project
- to jointly frame goals, problems and research questions for those interdisciplinary and transdisciplinary projects

Procedure employed

The plenum was moderated by a project leader of the [Network of Transdisciplinary Research](#) (Swiss Academies of Arts and Sciences), the subgroups were co-moderated by four PhD students of the organising team.

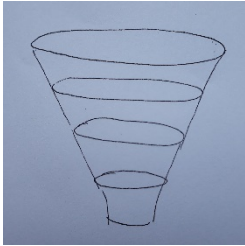
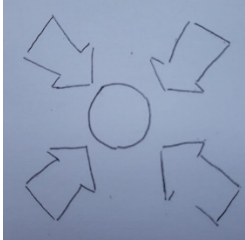
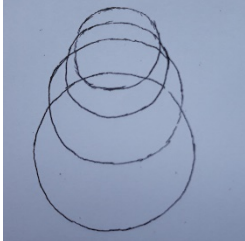
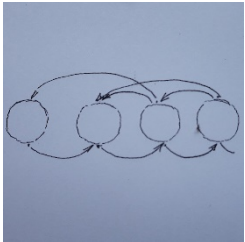
We alternatively worked in plenum of all participants and four subgroups. Each new method was generally explained by the moderator in the plenum, afterwards the methods were put into practice in the subgroups supported by the co-moderators.

Following methods for co-creating knowledge were applied in order:

- **to get an overarching insight in the rich expertise and its connections within the whole group:**
 - M1 [Venn-Diagramm](#)
- **to jointly design a project outline in subgroups:**
 - M2 [Idea-Tree](#)
 - M4 [Three types of knowledge tool](#)
 - M6a [Rich picture](#)
 - M7a Project draft
 - M7b Prepare pitches
- **to clarify which stakeholders are relevant, which stakeholders could influence the project to which extent and how a key stakeholder experiences the project:**
 - M3a [Stake holder analysis](#)
 - M3b Power-Interest-Grid
 - M6a [Rich picture](#)
 - M6b Perspective change
- **to identify hidden assumptions and different styles of thinking of the team members:**
 - M4 [Three types of knowledge tool](#)
 - M5 [Tool box approach](#)
- **to jointly advance the work of the subgroups by integrating feedback:**
 - M 8a/b [Research Marketplace](#) and reflection of the feedback

Experiences made

The chosen set of methods enabled the participants to take part in a co-creative experience and develop a rough project out-line within two days, despite the complexity of the challenge “sustainable food production” and the big variety of expertise in the team. This was possible, because the workshop`s design supported following aspects:

	<ul style="list-style-type: none"> • Filtering/narrowing the scale of abstraction: Most methods on the first day worked as kind of “filter” scaling down and refining the large pool of expertise in the whole group and the complexity of the challenge “sustainable food production” into four rough research questions, which were worked out in the subgroups (M1/M2/M4). The “Rich picture” (M6a) supported system thinking about the research questions by creating a picture of the interrelations within the project. Based on that the project draft and the pitches (M7a/M7b) were worked out.
	<ul style="list-style-type: none"> • Change of perspective: All methods inspired the subgroups to continuously move around their research question and change their perspective on the evolving project: <ul style="list-style-type: none"> - by discussing the content itself (M1/M2/M4/M6a/M7a/M7b/M8a/M8b) - by looking at the research question from the stakeholder`s view (M3a/M3b/M6a/M6b/M8a) - by integrating feedback from the other subgroups after their presentation at the Research Marketplace (M8a/M8b)
	<ul style="list-style-type: none"> • Consolidation of the project-team: Concerning team building and improvement of communication all methods worked like “layers” deepening mutual understanding and respect between the members of the subgroup (especially M4/M5).
	<ul style="list-style-type: none"> • Iterative process: Due to the ambitious time schedule of the workshop, the individual steps of each method were not fully discussed. In consequence, open questions of previous steps/methods were brought up in one of the following steps/methods again. This phenomenon led to an interesting iterative process, where previous steps were refined repeatedly as the teamwork progressed.

Conclusions

The design of this workshop could be very helpful in the beginning of doctoral schools. In this case it might be interesting to integrate “best-practise” lectures and discussions with senior scientists, who are experienced in the lead of inter- and transdisciplinary research projects.

It could be helpful to teach strategies, how to handle different levels of hierarchy (within the scientific system or in cooperation with partners from the industry or communities).

Transdisciplinary Workshop Day I

Time	Topic	Frame	What
08:30am		30`	Welcome + registration
09:00am	Introduction	10'	Introduction to the workshop Introduction of the swiss-td-net Introduction and expectations of the participants Introduction to the workshop program
		20`	Introduction to the challenge: "challenges of the food production system"
		10`	Forming groups
		50`	Show diverse expertise of the group members
10:30am		Method 1: Venn diagram	30'
11:00am	Method 2: Idea tree	60'	Explore potential topics to address Prioritize topics to address (reduce complexity of the problem)
		30'	Identify the most relevant actors for the topic and how to approach them
12:30pm	Lunch	75'	
01:45pm	Method3b: Power interest grid	30`	
02:15pm	Method 4a: Three types of knowledge tool	60`	Finish actor analysis/power/interest grid Framing the project's overarching goals Draft a first title, an overarching goal, and one-two main goals for each knowledge type
03:15pm		30'	Coffee break
03:45pm	Method 5: Toolbox Approach	50'	Reflection: how to do "good" research?
04:35pm	Open questions and discussions	25`	
06:00pm	Voluntary program	90	Guided tour
07:00pm	Voluntary program	Open End	Dinner

Transdisciplinary Workshop Day 2

Time	Topic	Frame	What
08:30am	Method 6a: Rich picture	60'	Recapture the first day Bring back systems thinking and show complexity of the problem Rethink the main goals
	Method 6b: Perspective change	15`	One key stakeholder presents why the project was a success
	Method 6c: Actor constellation	45`	Identify the most important stakeholders regarding the problem and potential solutions (one chosen project)
10:30am	Coffee break	30`	
11:00am	Method 7a: Project draft	60'	Specify the project outline Prepare an instant poster for the Research Marketplace
	Method 7b: Prepare pitches	30`	Prepare pitches for research funders and stakeholders (to “kickstart” the Research Marketplace)
12:30pm	Lunch	75`	VonRoll Mensa, Fabrikstrasse 8
01:45pm	Method 8a: Research Marketplace	70`	3min Pitch to research funding committee and 3min Pitch to stakeholder group Then silently comment on other group’s posters (use post-its)
02:55pm	Method 8b: Reflection	20`	Reflect on the feedback of the other groups
03:15pm	Coffee break	30`	
03:45pm	Open questions and discussions	30`	
04:15pm	Formative course evaluation	30`	

Workshop team

Moderator: Tobias Buser (tobias.buser@scnat.ch), td-net, www.transdisciplinarity.ch

Co-moderators: Jakob Winter(jakob.winter@vetsuisse.unibe.ch); Annika Bremhorst (annika.huber@vetsuisse.unibe.ch); Özcelik, Ranya (ranya.oezcelik@vetsuisse.unibe.ch); Charlotte Mélanie Warembourg (charlotte.warembourg@vetsuisse.unibe.ch)

Co-organisers (unable to attend): Mickael Cargnel (Mickael.Cargnel@sciensano.be); Filipe Miguel Maximiano Alves de Sousa (filipe.maximiano@vetsuisse.unibe.ch)