Facilitation Manual

Systems Mapping Session

Interdisciplinary problem solving for the future:
Systems thinking and creative interdisciplinary problem-solving and project management

Bergen Summer Research School 2021

June 9, 2021

15:00 – 16:30

Contents

Agenda

TIME	ACTIVITY	OVERVIEW & PURPOSE
15:00 – 15:05	Breakout Rooms & Entering Miro	Participants are split into groups. They do not enter the Miro environment but observe the facilitator's screen on Zoom for the entire session.
15:06 – 15:15	Presentation of Example Causal Map	The facilitator presents an example of a CLD to provide participants with a visualization of the end-goal of the workshop and to discuss important concepts for the systems mapping activity
15:16 – 15:10	Development of Causal Map	The facilitator works with the participants to develop a causal map, identifying mechanisms operating within the SDG nexus the participants are working on
16:11 – 16:15	Summary of Causal Map	The facilitator provides a summary of the causal map that has been developed
16:16 – 16:30	Information / Next Steps (Plenum)	Course instructors inform the participants about next steps and take any questions.

Facilitation Script

TIME	ACTIVITY	MIRO	NOTES / SCRIPT
15:00 – 15:05	Breakout Rooms (Zoom)	Navigation panel	1. Share your **Screen in Zoom** (to ensure that participants can see via Zoom what you click on / where you are)
15:06 – 15:15	Presentation of Example Causal Map	Example CLD	1. Present **overall goal**: "*The goal of today's mapping session is to understand the factors and mechanisms that operate in the XXX SDG nexus, as well as to start thinking of the interactions between those factors and mechanisms.* 2. Explain some of the main loops of the CLD, emphasizing (synergies and) competition between some of them. Phrase the example in a way that allows you to discuss policy resistance / unintended consequences, and that you can help participants see that this 'exercise' allows us to start thinking of the interactions between SDGs and of how we can reverse (or weaken) those mechanisms, or loops, that operate against what we want to see. - [<u>just suggestions</u>, in case they are helpful]: You can start with the R5 loop around Poverty o You can use the term "**driver**" to describe a cause, e.g. "*One of the drivers of Poverty is Economic Growth*" o Explain that a dotted arrow indicates a relationship **in the opposite direction**, so that e.g. the more economic growth, the less poverty <u>and vice versa</u> o Closing the **feedback loop**, tell the story of the loop ▪ You can begin with the loop working as a virtuous cycle but then discussing it working as a vicious one. This can allow to discuss **how we could intervene to turn it from a vicious to a virtuous** → e.g. by boosting Education and Productivity, which is another driver of Poverty o You can introduce the next goal: e.g. "*there can be many drivers of Edu & Productivity but, here, we are interested in SDG6, Clean Water and Sanitation, and we can certainly see how this can lead to higher Edu & Prod (directly & indirectly)*" o Continue with loops (don't have to cover all), but identify and describe one situation where **policy resistance / unintended consequences can be observed**, for example B2 / R1 loops: "*What we see is that, if we have a policy that increases <Investments in Clean Water and Sanitation>, it could work through <this R1 loop via Education and Productivity> to <boost economic growth (allowing us to invest more in Clean Water & Sanitation the next time around)>. But, at the same time, this <B2 loop> would start working, as <Economic Growth would reduce the availability of Clean Freshwater Supplies, leading to decreases in so and so>.*

			We can see that, in this case, we have a competition between those mechanisms / a process that resists our policy / unintended consequences of such a policy" 3. Tell participants that this [causal map] is what we'll we be trying to develop in this workshop. Emphasize that **we will be working at a high-level**, like the one we see in the example (taking a 'helicopter view') **because our focus is on how different SDGs interact** (and not going down in the 'nit and grit' of each SDG/mechanism) 4. Also tell participants that this example is a finished product and not something that we will reach within the limits of the workshop. The workshop is an **exercise to demonstrate the approach**. Teams can **come back to their board and further develop the map** for their purposes should they wish to do so. 5. Ask if there are any **questions**
15:16 – 16:10	Development of Causal Map	Causal Map [full view]	1. Introduce the mapping area: *"This gray area that you hopefully see with the title Causal Map, is where we will be working"* 2. Inform participants that we have **already placed the SDGs** they have decided to work on already in the Causal Map area
		Causal Map [zoom in]	[Transition here can be challenging– <u>Assert yourself</u> if needed and let them know that you now need everyone's attention (please)! They will later get access to the board so they can explore it at any time they wish, just not now!!] 1. **Introduce** the causal mapping activity "*The goal of this exercise is to find the connections between different concepts or variables that operate in this SDG nexus"* 2. Before starting, encourage participants to **keep notes** of what we discuss or of further ideas they might have and which we don't cover. ***Not everything that comes up in the discussion will be visible on the map***, so the notes are an important complement for their further work.

			3. Ask participants for **connections / factors** *"Can anyone think of any mechanism, or any process that might connect any two goals (directly, or through some other variable(s))?"* If they cannot find any path, you can use this **alternative**: *Can someone identify a factor or variable that can share a relationship with one of the SGD targets already on the map? It can be a driver / cause of one of the targets, or a consequence of it"* 4. When the first **link has been identified**: a. Add any new variable as a **sticky note** b. Connect the two variables with an **arrow** c. Ask whether the **relationship between the two** is in the same or opposite direction (or positive or negative). d. **Edit, if needed, the arrow** to indicate the appropriate polarity (normal for positive, dashed for negative) 5. Continue asking for connections, focusing on extending the story captured in the first connection: «*We have just made a connection between A and B – what else do we know about this story – is there anything that contributes to A, or can we think of anything that changes because of B?"* 6. Try guiding people to **closing loop(s)**. If you see a path, "nudge" E.g. "*Can we see a relationship, or a path between A and B here?*" **If a loop is identified**: a. Make a bit of a fuzz the first time! b. Describe **how the loop operates** (simulate mentally) c. Add a **Loop Identifier** and, if possible, propose or ask for a **name for this loop**. 7. If you see an opportunity to talk about a **synergistic / competing relationship between two identified loops**, take it! Talk about **policy resistance**. You can try to mentally simulate a policy, for example:

			"What we see is that, if we have a policy that increases <variable A>, it could work through <loop 1> to do <a "good" thing that we want>. But, at the same time, <loop 2> would also start working, <having this "bad" effect>, So we see that, in this case, we have a competition between those mechanisms / unintended consequences of such a policy"
16:11 – 16:15	Summary of Causal Map	Causal Map	1. Inform participants that the **time for the mapping activity has passed** and that you will now continue with a summary of the causal map before returning to plenum - [you might need to be a bit assertive here if they are too hyped up!] - [**optional**] Remind them that they can always come back and continue working on the map! **2.** Provide a **summary of the identified loops** so far, emphasizing synergies or competing loops, if such are identified 3. **Thank participants**, wish them good luck on their project and ask them to leave the Breakout room **4. Breathe. You did it ;)**

Potential Questions / Challenges

"What are we going to use this for? What are next steps? What is our assignment?"	
	"*We will have 15 minutes at the end (16:15-16:30) in plenum with the course instructors, where you will learn more and be able to ask questions about the next steps and assignment*"
During Presentation of Example CLD	
"Why is this link here like this / I don't agree with this causal relationship"	
	You can always say that this is a representation of what stakeholders have identified when developing the map (mental model) – it is not our purpose to see if we agree or not with this; we will develop our own map - If they are troubled by aggregation level, you can always say that there might be additional notes/descriptions for each link / mechanism; they are just not on the map. In any case, politely redirect the conversation away from questions that relate to the *content* of the example
During Causal Mapping	
"Wrong/weird variable" proposed	
	Ask questions to try to clarify, or make recommendations: e.g. "Well, people might need to walk 2 hours to get to school, or they might need to go through a mountain or something" → "*Yes, of course. This is very important! Maybe, we can call this something like 'Accessibility of Education'? Does that sound like a good name for what you are describing?"*
Too "zoomed in" variable(s) proposed	
	"*Yes, this is indeed an important variable. But this takes us at a bit more "detailed" level that we want to work on today"* *How about we place this variable in the **Parking Lot** / you make note of this variable and we can maybe introduce it at a later iteration **OR** you can incorporate it later, <u>as you further work on the map</u>"*
Getting 'stuck' in a mechanism	
	"Ok, we see this is a bit contested!" - If you have a suggestion for this mechanism, share it respectfully *(e.g. "what I hear you describing is …")* - If not, "*How about we 'park' it for a moment and we can cycle back to it later with fresh eyes*" [place in ***Parking Lot*** area]