

Report on the Workshop: Theory U-3D Mapping Tool

The present report has the aim to document the planning and implementation of a 3D Mapping tool workshop conducted with the participation of master's students from the ITT-TH Köln; as well as to develop suggestions and recommendations for future workshops to be conducted by the U Lab of the TH-Köln.

I. General Information

Title of Workshop
Theory U-3D Mapping: Understanding the Interconnectedness in Systems (and Emerging Future).
Facilitators
Brilyana Bela, Mariana Arteaga, Laura Vetter
Objective
Understand and practice the implementation of the tool 3D Mapping.
Skills
<p>The seminar is designed to support soft skills to identify the root causes of socio-environmental problems in complex systems and come up with innovative solutions. The soft skills of this workshop are:</p> <ul style="list-style-type: none"> • leadership capabilities, • systems understanding, • complex & dynamic problem solving, • participation and multi-stakeholder collaboration
Place and date
<p>Campus Kalk, TH-Köln Friday 18 of November of 2022, duration of 3 hours</p>
Setting and materials
<p>Space and furniture: A room with space for 8 tables and 16 chairs, a projector and screen (Photo 1). Materials:</p> <ul style="list-style-type: none"> • Stationery: name tags, markers, paper sheets, pens. • Printed sheets: timetable, registration sheet, 3D mapping instructions. • Material box: small and diverse objects that participants can use to build the systems.
Workshop announcement
<p>The workshop was announced and promoted through two media:</p> <ul style="list-style-type: none"> • E-mail: an e-mail was sent to all students of the master's programs with the main information of the workshop and a Flyer (Annex A). • WhatsApp: the Flyer was sent to different students WhatsApp groups.



II. Timetable

Time	Topic	Activities	Materials	Intention	Comments after implementation
15 min	Introduction	<p>Warm up activity (Photo 2)</p> <p>First the participants write on a piece of paper: 1) name, 2) first job, and 3) something they learned from that job.</p> <p>To give an example one of the facilitators introduces him/herself saying her name, first job and something funny she learned from her it. Then every participant introduces themselves the same way.</p>	Name tags, markers, Registration sheet, pens	To break the ice and feel comfortable within the group.	This activity is a simple and funny way to get a personal introduction of the participants. They get to share something they feel comfortable with. During and after they felt more relaxed and attentive to the start of the workshop.
20 min	Sensing activity	<p>Stand in line</p> <p>The participants stand on an imaginary line according to their previous knowledge on Theory U. The closer they stand to the end "A" it means they don't know anything about it and the closer they stand to the end "B", means they are very familiar with it.</p> <p>Question to start: How much do you know about Theory U? Where do you stand?</p> <p>The facilitator asks 3 people among the line about why they stood up in a particular spot.</p> <p>Expectations questions: the participants write down the next questions and then 3 participants share with the group.</p> <ol style="list-style-type: none"> 1. What is your interest and expectation to join today's workshop? You can write down your expectations and your learning outcomes. 2. If you are a leader or a change maker, what do you do to change a system? 	Make space for all the participants to stand up in a line	The participants get in touch with their own intention and expectations from the workshop, they share with others.	This activity was good for body activation, and it helped to have a first look into previous knowledge and expectations. The participants found out some similarities about their expectations. If there is an expectation not covered by the workshop it is important to clarify from the beginning how close the workshop can get to it, but also the limitations.



Time	Topic	Activities	Materials	Intention	Comments after implementation
15 min	Introduction to Theory U and 3D Mapping	<p>Introduction (Photo 3)</p> <ol style="list-style-type: none"> 1. Presentation of Theory-U: origin, objectives, stages, levels of listening. 2. Explanation of the 3D Mapping tool: its role within Theory U, objective, steps, outcomes, and results. 	Laptop, PPT presentation, videos, projector	The participants have a brief and clear initial approach to the 3D Mapping	This activity took longer than 15 minutes. The presentation could focus on Theory U and instead of explaining the tool here, explain it during the exercises.
10 min	Preparation of topics	<p>First the participants form into pairs and talk about options each can use to practice the implementation of 3D Mapping. To help them choose, the facilitators can suggest their personal experience or a system on their thesis. At the same time the facilitators distribute sheets with the instructions of the exercise.</p>		The participants choose a system to work on with a clear idea that they will be sharing information of the system with a partner.	Most participants chose their personal system since it was the easier option to practice the tool; nevertheless, not everybody felt comfortable working on it. It's important to facilitate alternative topic examples.
50 min	Exercise 1	<p>The facilitator explains to the participants the instructions of the exercise, which they will also have on the instruction's sheets. To begin the facilitator builds a quick example of a system using the objects so they understand how to start. In total the participants will conduct these four steps:</p> <ol style="list-style-type: none"> 1. Build the current situation of the system: taking objects and building the map-15 min (Photo 4) 2. Reflect from 4 directions-15 min (Photo 5) 3. Adjust the sculpture-10 min 4. Wrap up-5 min <p>To make it more efficient the facilitator makes a pause and gives a quick example for each step, this also helps</p>	Material box, tables	The first person of the teams practices every step of the tool getting in touch with the chosen system, being sensitive with the different elements, their connections, and the emerging future.	At the beginning people were a little confused on how to start. This is why it is necessary to build a first example before they choose their objects or build a map at the same time with the teams. It's important that the facilitators go around the teams for questions or difficulties. We didn't have space



Time	Topic	Activities	Materials	Intention	Comments after implementation
		to control the time the participants dedicate to the steps in a way that they finish together and on time. Consider that the first step includes choosing the objects.			enough for the teams to move around the systems for step 2. One team finished very fast before all the others.
10 min	Break	The participants take a break, offering snacks and drinks. This is a good moment to take a group picture (Photo 8)	Snacks and drinks		It is necessary to make a pause between exercises, we extended to 15 min.
5 min	Energetic activity	Heads up, Heads down (2 circles for > 10 people)		For the participants to feel attentive before the next exercise	Because we were over the time, we skipped this activity.
40 min	Exercise 2	The second person does the exercise following the same steps: <ol style="list-style-type: none"> 1. Form the current situation-15 min 2. Reflect from 4 directions-15 min 3. Adjust the sculpture-10 min 4. Wrap up-5 min 	Material box	The second person of the teams practices every step of the tool getting in touch with the chosen system, being sensitive with the different elements, their connections, and the emerging future.	The participants do the exercise faster and with less questions since they had a first practice.
10 min	Case study	The facilitator presents a real case study (Photo 6) that used the 3D Mapping tool. This brief presentation focuses on the objective of its implementation, the planning phase and the two systems built inviting the participants to identify the elements of the system, and the main changes between the current and the desired system.		The participants a real implementation on a study case, related to a socio-environmental problem.	The group seem very engaged with the example, having more clarity about the procedure from the previous practice, it seemed easier for them



Time	Topic	Activities	Materials	Intention	Comments after implementation
					to understand its application on a study case.
10 min	Evaluation and learning	<p>With the aim of getting feedback about the workshop (Photo 7), as well as the experience of the participants, the participants answer on a piece of paper, the following questions:</p> <ul style="list-style-type: none"> • What was your overall experience about this workshop? How did you feel during the process? • What do you want us to improve from this workshop? • After experiencing today's workshop, how would you apply 3D mapping in your future work? (e.g. thesis, professional career, or personal life) 	Sheets and pens	To get a close idea of how the experience of the workshop was for the participants.	It was important to have this part written because it allowed the documentation of the information as in this report. The questions should be rephrased in a way that relate to the initial expectations to compare both answers.
5 min	Closing activity	<p>To close the workshop the facilitator asks the participants to share their answers to the previous questions and additionally asks</p> <p><i>What are the main messages and learnings you take with you from today's session?</i></p>		To share with the group the ideas, feelings originated during the session, looking for group and individual outcomes.	The general comments were very positive and insightful. It is a nice sharing moment with participants outside the teams.

III. Feedback from participants

Category	Feedback
Initial interest to take the workshop (knowledge and skills)	<ul style="list-style-type: none"> • System thinking • Problem solving • System representation • Decision making • Strategies for personal and professional life • Communication skills, especially with people with different backgrounds. • Potential use on thesis • The overlap with other frameworks or concepts like design thinking.
Experience with the tool	<ul style="list-style-type: none"> • The tool helps find/identify specific elements of the system that can/should be improved and how to reorganize the system to achieve a state or goal. • It provides an organized method to change/fix a current system. • It is very important to have hands (practice) the implementation of the tool to understand how it works and its benefits. • It makes you look a problem from a different perspective which helps you to understand it on a simpler manner and get important insights about it. • New way of understanding a system, how it works and changes, e.g., how little things as personal level could eventually cause bigger changes.
Feelings and attitudes	<ul style="list-style-type: none"> • Creative • It blew my mind • Reflective • Insightful • Connected with the tool • Surprised • Encourage • Understood • Inspired from getting a new perspective
Opportunities of improvement	<ul style="list-style-type: none"> • Give a first example of how to build a system before entering the activity, it could be a video of the process. • Mention beforehand that in the case of choosing their personal system it can get personal, so they take it into account when choosing a system. Using a personal system might be uncomfortable to share specially if you do the exercise with someone you don't know. • The explanation of Theory U could be more precise or come after the exercise.

- Increase the time frame.
- Include more activities/tools.

Announcement and Flyer

- Depending on the audience and the implementation the points on the flyer should change.
- Include a catchy activity on the poster to help people get a closer idea of what is going to be done on the workshop.
- It is important to include the skills that the workshop includes.
- Correction: Multistakeholder and system understanding
- Correction: "... to identify alternative and effective solutions"
- The 3D Mapping concept was too general, it's important to give a clear idea of the tool since it's the focus of the workshop.

Actions or skills

- Reorganize a system to get a different perspective to focus better on the key elements and leverage points.
- Understand better how the system works, including networks and processes.
- Evaluate the working of a system
- Get insights and innovative ideas
- Understand different stakeholders' perspective
- Current and future problem solving
- Deep reflection on the current situation of an individual, a society or a company.
- Recognize to what direction the current situation is taking a system.
- Co-create short- and long-term goals
- Make a simpler approach to an overwhelming system.
- When the stakeholders cannot meet the tool could be adapted to do it digitally.

Potential application of the 3D Mapping tool

Areas of application

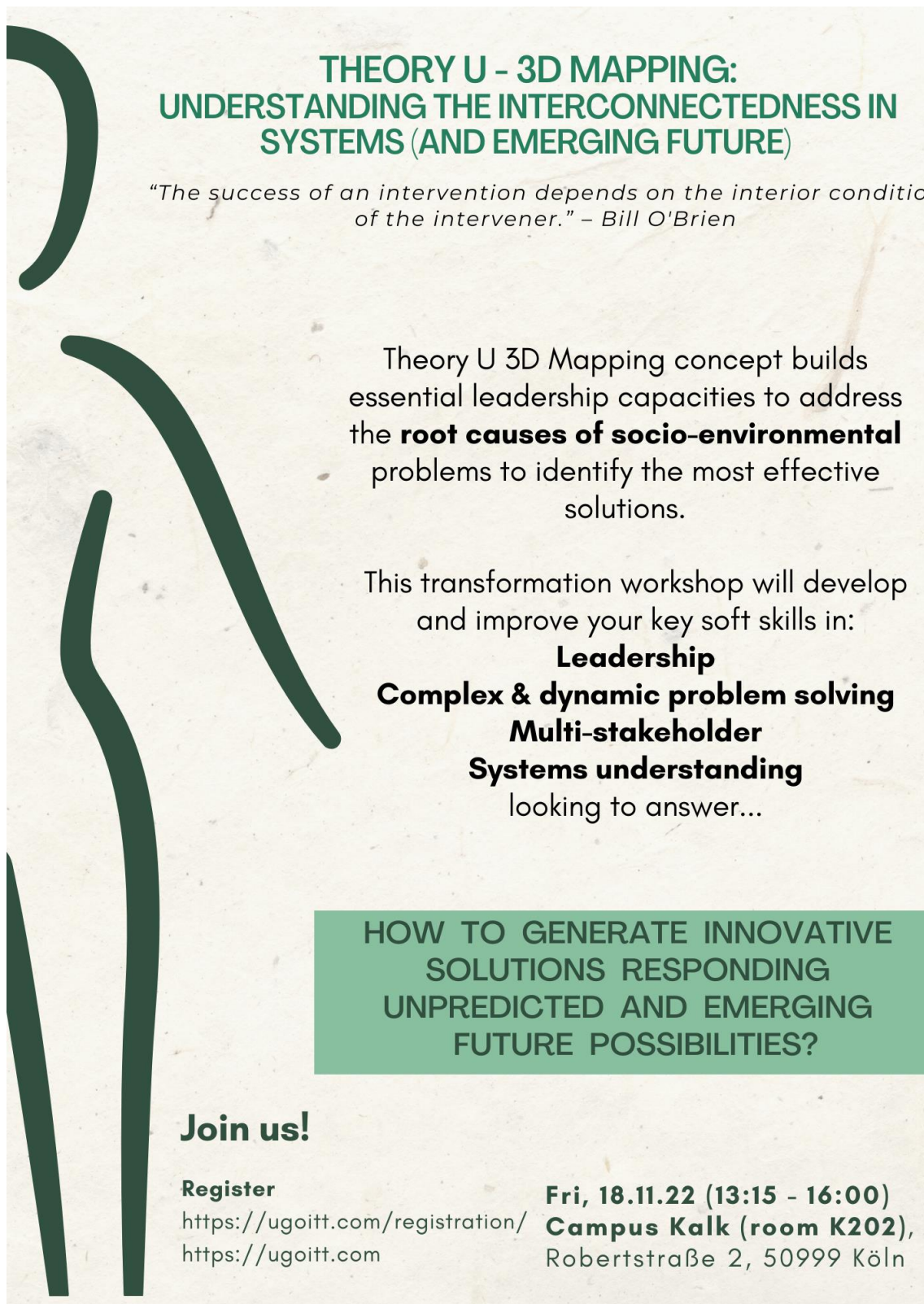
- Personal life: "when I face a problem, I can use this tool to visualize it in a simpler way"
- University: thesis, project I or III
- Professionally: entrepreneurship, policy formulation, water sector.

IV. Tips and recommendations for facilitators

- The main objective of this workshop is the 3D Mapping tool, so even though an introduction of the Theory U is basic to give the general context, it shouldn't last too long, and it should not focus on technical words but in the intention and the process.
- It's important to ask at the beginning for the expected learning outcomes and at the end for the learning outcomes obtained so the two can be compared. If the participants mention outcomes that won't be covered during the workshop, the facilitator should kindly make the clarification from the beginning.
- Keep attention to the duration the activities, so that enough time is given to the exercises which are the most important and time-consuming of the session.
- Right after choosing a system to work on for the exercise, it is recommended to do a "sensing activity" that helps the participants to get in touch with their systems before they build the first map.
- Considering that the tool is physically built, visual support during the explanation of the steps using pictures and videos of 3D Maps or building one at the moment of the explanation, is essential before and during the exercise.
- Considering that the session could last between 3-4 hours, the management of the breaks is fundamental. A long break, of at least 15 min, is necessary between exercises. Also, one or two small energizing activities can help the participants keep motivated.
- During the exercises some teams could finish their maps long before the others, this could be an opportunity to get closer and to get to know their systems and how they are applying the tool, making sure they are covering all the steps.
- For the implementation, it could be said that working with a personal system is a very easy and simple choice to practice the tool; nevertheless, it was pointed out by the participants that not everybody is always comfortable sharing a personal system with a partner, especially if they don't know each other. It's important to inform them previously about the sharing part of the system, so they can make an informed decision for the system they want to work on.
- In addition is important to give ideas and alternatives of systems the participants could use for the exercise. For this it could be recommended to think about a system they are part of (professionally, academically) that faces a problem or that is "stuck" in some way.
- Although not included in the timetable, after the exercises it was important to mention the different uses of the outcomes obtained after the tool has been implemented. This part was key to connect how the insights and observations obtained could be key inputs for next steps, actions and decision making in the systems.
- Even though the exercises for this workshop were developed individually, it could be developed in small groups if two or more participants are part of a same system they would like to analyze, for example, if they are in a same team on project I or III. This could be interesting given that the tool is ideal for the exchange between different stakeholders.

Annexes

A. Flyer



**THEORY U - 3D MAPPING:
UNDERSTANDING THE INTERCONNECTEDNESS IN
SYSTEMS (AND EMERGING FUTURE)**

"The success of an intervention depends on the interior condition of the intervener." – Bill O'Brien

Theory U 3D Mapping concept builds essential leadership capacities to address the **root causes of socio-environmental** problems to identify the most effective solutions.

This transformation workshop will develop and improve your key soft skills in:

- Leadership**
- Complex & dynamic problem solving**
- Multi-stakeholder**
- Systems understanding**

looking to answer...

HOW TO GENERATE INNOVATIVE SOLUTIONS RESPONDING UNPREDICTED AND EMERGING FUTURE POSSIBILITIES?

Join us!

Register
<https://ugoitt.com/registration/>
<https://ugoitt.com>

Fri, 18.11.22 (13:15 - 16:00)
Campus Kalk (room K202),
Robertstraße 2, 50999 Köln

B. Photos



Photo 1. Room where the workshop took place.



Photo 2. Self-introduction activity



Photo 3. Introduction to Theory U



Photo 4. Building the maps of the systems



Photo 5. Reflection on the map from the 4 directions.



Photo 6. Presentation of a case study.

