

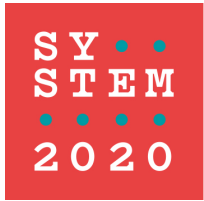
# SySTEM 2020: Co-design meeting Facilitation guide

18-19 of March 2019

Aalto School of Arts, Design and Architecture

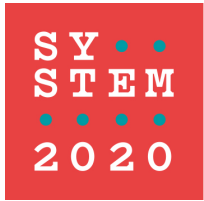
Väre building, Otaniementie 14, Espoo

Room F102 (access from the main lobby)



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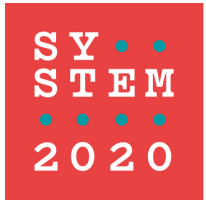


SCIENCE  
LEARNING  
OUTSIDE  
THECLASSROOM

## SYSTEM 2020 Co-design Meeting Agenda

DAY 1: Monday 18<sup>th</sup> of March

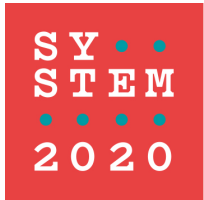
Time	Description	Attendees
08:00	Project Partners arrive	Project partners (21)
08:00 – 12:00	Consortium Meeting (Part I)	Project partners (21)
12:00 – 13:00	Lunch at Fazer cabinet (A bloc)	Project partners (21)
13:00 – 17:00	Co-design workshop (part I)	Project partners, third parties, learners, stakeholders (57)
18:30	Dinner at Metso restaurant (Dipoli)	Project partners, third parties, learners, stakeholders (55)



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DAY 2: Tuesday 19<sup>th</sup> of March

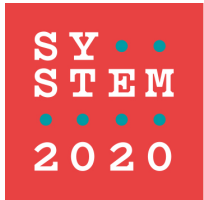
<b>Time</b>	<b>Description</b>	<b>Attendees</b>
09:00 – 12:30	Co-design workshop (part II)	Project partners, third parties, learners, stakeholders (57)
12:30 – 14:00	Final presentations of co-design workshop work + wrap up. Quick-lunch served in F102 room.	Project partners, third parties, learners, stakeholders, external invitations ()
14:00 – 16:00	Consortium Meeting (Part II)	Project partners (21)



## Co-design Workshop Activities

DAY 1: Monday 18<sup>th</sup> of March

Start time	Activity	Duration
13:00	Welcome & general introduction	10 min.
13:10	Presentation of SySTEM 2020 map (WAAG)	15 min. (10+5)
13:25	Icebreaker: name game with the catchbox	15 min.
13:40	Picking badges and groups formation	10 min.
13:50	Icebreaker: filling another one badge and introducing each other	15 min. (3+12)
14:05	<b>Task 1: Building a conceptual map</b>	25 min.
14:30	Sharing and merging conceptual maps	20 min.
14:50	Coffee break	15 min.
15:00	<b>Task 2: Identifying challenges and opportunities</b>	40 min. (15+25)
15:40	Sharing and merging challenges and opportunities	20 min.
16:00	Prioritization of unified opportunities	10 min.



16:10	Averaging prioritization scores	15 min.
16:25	Presenting challenges and prioritized opportunities	30 min.
17:00	Thanking and informing about dinner practicalities	
18:15	Meeting at Aalto metro station to go to Dipoli	10 min. walk



13:00- Welcome & general introduction

**Duration:** 10 min.

**Group size:** Big group (57 people)

**Materials:** slides, designit

**Description:** Introducing Aalto team and presenting the co-design workshop structure and agenda for the day. Providing information about communication tools (designit)

13:10- Presentation of SySTEM 2020 map

**Duration:** 15 min. (10 min. presentation, 5 min. for Q&A)

**Group size:** Big group (57 people)

**Materials:** slides

**Description:** Waag coordinator presents the online map that partners and third parties are expected to provide input.





13:25- Icebreaker: name game with the catchbox

**Duration:** 15 min.

**Group size:** Big group (57 people)

**Materials:** Catchbox microphone

**Description:** The person who gets the catchbox says his/her name and the institution they are related to. After self-introducing the person throws the catchbox to another one. This goes on until everyone has self-introduced.



13:40- Picking badges and groups formation

**Duration:** 10 min.

**Group size:** Big group (57 people)

**Materials:** Badges

**Description:** Badges will be distributed in 3 groups according to the theme indicated in each badge (inclusion, engagement, and assessment and recognition). Participants can freely pick the badge they want.







13:50- Icebreaker: filling another one badge and introducing each other

**Duration:** 15 min. (3 min. for filling and 12 for introductions)

**Group size:** 18-17 people (1 group per theme)

**Materials:** Badges, pens

**Description:** In pairs, participants fill each other's badge. After this, each participant introduces the person s/he has filled the badge for to the rest of the group (theme group)



14:05- Task 1: Building a conceptual map

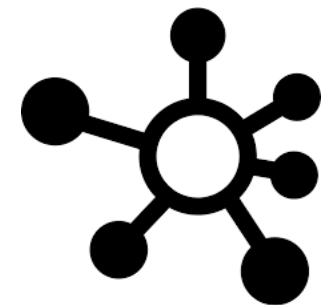
**Duration:** 25 min.

**Group size:** 8-9 people (2 subgroups per theme group).

**Group formation:** In each set of theme badges there will be 2 different robot icons. Participants will be asked to group with those who have the same theme and robot icon in their badges.

**Materials:** craft paper (big roll), post-its, markers. Themes background slides projected as background information.

**Description:** Participants are asked to build a conceptual map about their group theme (inclusion, engagement, and assessment and recognition). They have freedom about what elements to include and how to do it (they can write concepts, but also draw). The purpose of this activity is to open a conversation inside the group of how they understand a specific theme.





14:30- Sharing and merging the conceptual maps

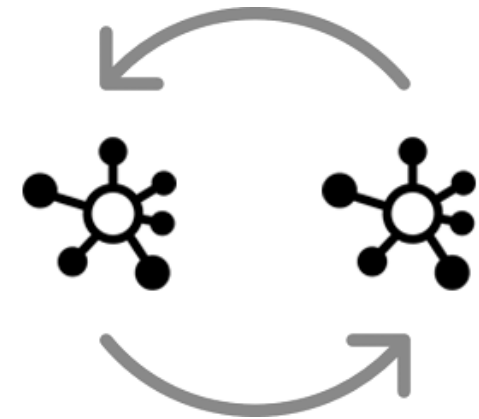
**Duration:** 20 min. (5 min. presentation/subgroup + 10 min)

**Group size:** 18-17 people (theme group).

**Roles:** specify one spokesperson per subgroup. Ask people to document work and upload it to designit.

**Materials:** craft paper (big roll), post-its, markers

**Description:** 1 spokesperson from each subgroup presents the map. After the presentations, participants look for common aspects and differences and generate 1 conceptual map (they can modify one of the c-maps created by one of the subgroups)



14:50- Coffee break

**Duration:** 10 min. (

**Group size:** 57 people (big group).

**Description:** free time to chat around and check others groups' work.





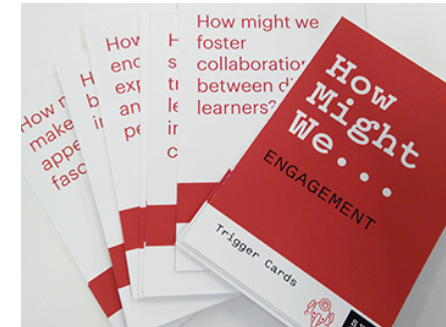
## 15:00- Task 2: Identifying challenges and opportunities

**Duration:** 40 min. (15 min. for brainstorming + 25 min. for clustering)

**Group size:** 8-9 people (2 subgroups per theme group).

**Materials:** How Might We triggers, proto-personas, craft paper (big roll), post-its, markers.


**Description:** The working space (whiteboard or paper on the wall) is divided in 2 areas: one for identifying challenges and another one for the opportunities. Different color post-its can be used to identify challenges and opportunities. Participants start by brainstorming. After this, they are asked to review all post-it notes and organize them (grouping similar concepts, stablishing hierarchy relations...)



Proto-persona

**Emily**

GENDER: Female  
AGE: 12  
POSITION: Student



"Robots are not my thing, they all look boring and electronics are hard to learn"

BEHAVIOURS & ACTIONS	NEEDS & PAIN POINTS
<ul style="list-style-type: none"> <li>Attends the public school in her neighbourhood.</li> <li>Is good at maths and biology.</li> <li>Goes often to the public library with her younger sister.</li> <li>Has a smartphone and uses it everyday.</li> </ul>	<ul style="list-style-type: none"> <li>Finding information and ideas about how to build a robot for a school assignment.</li> <li>Learning about basic programming and electronics.</li> <li>Collaborating with her team to build a robot.</li> <li>Getting motivated for building a robot and taking part in a robotics competition.</li> </ul>

ATTITUDES & INTERESTS

- She is shy and a bit insecure. She doesn't like to be judged.
- She likes spending time with her friends. She also enjoys playing music and doing crafts.

SCIENCE LEARNING OUTSIDE THE CLASSROOM 2020

15:40- Sharing and merging challenges and opportunities

**Duration:** 20 min. (5 min. presentation/subgroup + 10 min)

**Group size:** 18-17 people (theme group).

**Roles:** specify one spokesperson per subgroup. Ask people to document work and upload it to designit.

**Materials:** craft paper (big roll), post-its, markers.

**Description:** 1 spokesperson from each subgroup presents the challenges and opportunities. After the presentations, participants look for common aspects and differences and generate 1 map of challenges and opportunities.



**CATEGORY NAME**



**CATEGORY NAME**





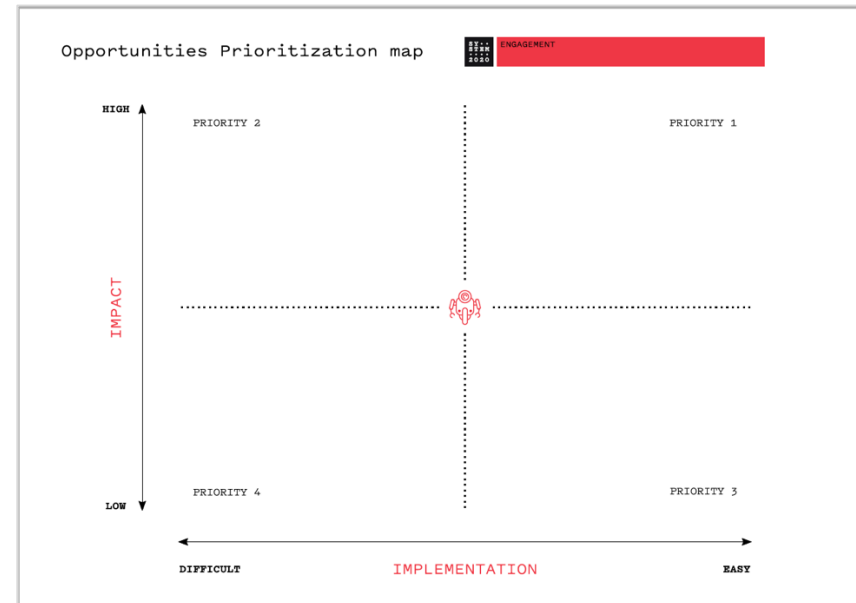
16:00- Prioritization of unified opportunities

**Duration:** 10 min.

**Group size:** individual activity (18-17 people of the theme group).

**Materials:** Opportunities prioritization map, pens.

**Description:** each member of a theme group assigns a priority level to the opportunities identified for a specific theme.





16:10- Averaging prioritization scores and preparing presentation

**Duration:** 15 min.

**Group size:** 18-17 people (theme group).

**Materials:** Prioritization of opportunities canvas, slides (template)

**Description:** Averaging the individual scores given to each opportunity in order to define the theme group priority list of opportunities. Filling the slide template to share the theme group challenges and opportunities with the other groups.

16:25- Presenting challenges and prioritized opportunities

**Duration:** 30 min. (10 min./group)

**Group size:** Big group (57 people)

**Materials:** slides (filled)

**Description:** A spokesperson from each theme group presents the challenges and opportunities they have identified around a specific theme.





17:00- Thanking and informing about dinner practicalities

Dinner at 18:30 at Metso restaurant (Dipoli building, Otakaari 24)

Possibility to meet at Aalto metro station to go to Dipoli at 18:15



DAY 2: Tuesday 19<sup>th</sup> of March

Start time	Activity	Duration
09:00	Welcome and program for the day	5 min.
09:05	Selection of opportunities	10 min.
09:15	<b>Task 3: Ideation</b>	2 h. 15 min.
11:30	Giving feedback to the design solutions	30 min.
12:00	Iterating the design solutions	30 min.
12:00	Preparing final presentation	30 min.
12:30	Co-design workshop closure: Sharing work and discussing solutions	1 h. 30 min.
14:00	Thanking and farewell to learners, stakeholders and third parties	







### 09:15- Task 3: Ideation

**Duration:** 2 h. 15 min. (8 min. + 30 min. +

**Group size:** 4-5 people (theme subgroup).

**Materials:** design solution canvas, papers, pens, color dot stickers

**Description:** Start with a warm up creativity technique called Crazy Eights. Participants fold a piece of paper in 8 parts and sketch eight distinct ideas around a specific opportunity in eight minutes.

Hang each person's Crazy Eights in the wall and share the ideas. Each person presents her/his ideas in 5 min. (30 min.)

Each subgroup member votes the 3 most interesting ideas by marking them with the color sticker dots (5 min.)

The ideas most voted are used to define a design solution. Facilitators give the design solution canvas to each of the subgroups. The subgroups are asked to elaborate their solutions based on the information requested in the canvas.



Ideation canvas		SCIENCE LEARNING OUTSIDE THECLASSROOM	SY STEM 2020
<b>WHO</b> Beneficiaries and their pain points	<b>WHAT</b> Challenge that the solution helps to solve	<b>WHY</b> Goals the solution helps to accomplish	
Context of use	Description of the solution (product or service)	Positive change the solution is expected to bring	
Indirect beneficiaries	<b>HOW</b> Requirements	Impact and key measures	
	Resources		



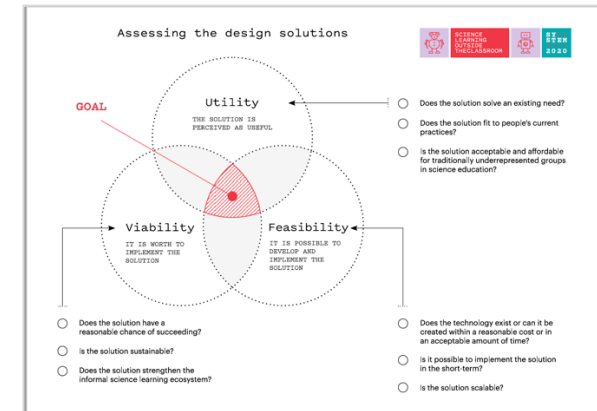
11:30- Giving feedback to the design solutions

**Duration:** 30 min.

**Group size:** 4-5 people (theme subgroup).

**Materials:** assessing the design solutions guidelines, post-its, pens

**Description:** Each subgroup gives its design solution to another subgroup (same theme). The subgroup assessing another one design solution uses the assessing the design solutions guidelines to guide their analysis. They provide feedback by sticking post-its' in the design solution canvas.



12:00- Iterating the design solutions

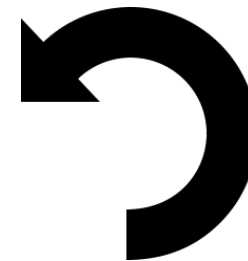
**Duration:** 30 min.

**Group size:** 3-4 people\* (theme subgroup).

**Subgroups:** 1 member from each of the 4 theme subgroups joins a separate group to prepare a summary presentation of the work performed under the same theme.

**Materials:** slides

**Description:** Subgroups iterate their design solutions based on the feedback provided by another group.





12:00- Preparing final presentation

**Duration:** 30 min.

**Group size:** 4 people\* (theme subgroup).

**Subgroups:** Members of this group come from the different subgroups (of the same theme).

**Materials:** slides (template)

**Description:** Preparation of a presentation that summarizes the work performed about a specific theme. The iterated versions of the design solutions are included in the final presentation.



12:30- Co-design workshop closure: Sharing work and discussing solutions

**Duration:** 1 h. 30 min. (20 min. + 10 min. Q&A/ per group)

**Group size:** Big group (57 people)

**Materials:** summary slides (created by each of the theme groups)

**Description:** One spokesperson from each theme presents a summary of the design solutions generated around a specific theme.

