UNIVERSITY OF OSLO

Methods, tools and techniques

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What makes a method, tool or technique participatory.

Agenda

1. What are we trying to achieve with Participatory Design?

- What makes it participatory, and why emphasize participation?
- Exercise: What do the words mean?

2. Ways of seeing the Participatory Design process

- General notion of the participatory practice (Bratteteig et al., 2012)
- *The 'pd-mindset'* (Sanders and Stappers, 2008);
- Having a say, mutual learning and co-creation (Bratteteig et al., 2012);
- Tell, make and enact (Brandt et al., 2012);
- Explorative, generative and evaluative (Sanders and Stappers, 2014);

3. Concrete examples of tools and techniques.

- Future Workshop (Handbook of PD, p. 145-146 & 152-153);
- Collaging (Visser et al., 2005);
- Probes (Gaver et al., 1999);

Part 1

What are we trying to achieve in Participatory Design?

Learning outcome from lecture: Why the Participatory Design field emphasize ‘techniques’

What is your current perception of methods?

«.. **data gathering is a central part of establishing requirements**, and of evaluation. Within the requirements activity, the purpose of data gathering is to collect sufficient, accurate, and relevant data **so that a set of stable requirements can be produced**, within evaluation, data gathering is needed in order to capture users' reactions and performance with a system or prototype»

(Preece, Sharp and Rogers, 2015, p 226).

Why emphasize participation?

"The heart of Participatory Design is participation" (Brandt et al., 2012)

The book (Simonsen and Robertson, 2012) emphasize a "participatory mind-set" (Sanders and Stappers, 2008), democratization, empowerment; the Scandinavian/Norwegian/institute(ifi) heritage.

And **under-emphasized** reason:
It is practical to have a PD-mindset

Example: oil-rig

- Interviews
- Observations of work practice
- Follow-up interviews
- Ideation session

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Contact person:
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Back to the example: oil-rig

- ~~Interviews~~
- ~~Observations of work practice~~
- ~~Follow-up interviews~~
- Ideation session

- Probes
  - Camera
  - Flowcharts
- Future workshop / collage
- What-ever you deem right to this context

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Covid
Q: Other?

Exercise in thinking about the meaning of words

Q: What is a method?

Q: What is a technique?

Q: What is a tool?

Bring out your means of payment!

Method

A Framework

Tool

Object

Technique

How you apply the tool and the method

Why do we emphasize techniques in PD?

THIS IS ONLY ONE WAY OF SEEING IT (my way)

Throughout your degree, you are going to see many different uses of the words, and

other words with similar meaning:

such as… tools, techniques, methods, methodology, theory, epistemology, ontology… etc.

Part 2

Ways of seeing the Participatory Design process

General notion of the participatory practice

We are moving beyond inquiry to inform designers (meta-design)

empowerment and democratization (Computers Dividing Man and Work (Sandberg, 1979) if you are interested PDs history)

Having a say, Mutual Learning and Co-creation (Bratteteig et al., 2012)

Enabling participation of end-users into design-decisions (Bratteteig and Wagner, 2014)

Bratteteig et al., (2012) view the method as a “set of principles of method which in any particular situation has to be reduced to a method of uniquely suitable to that particular situation” (from, Checkland 1981, p. 161).

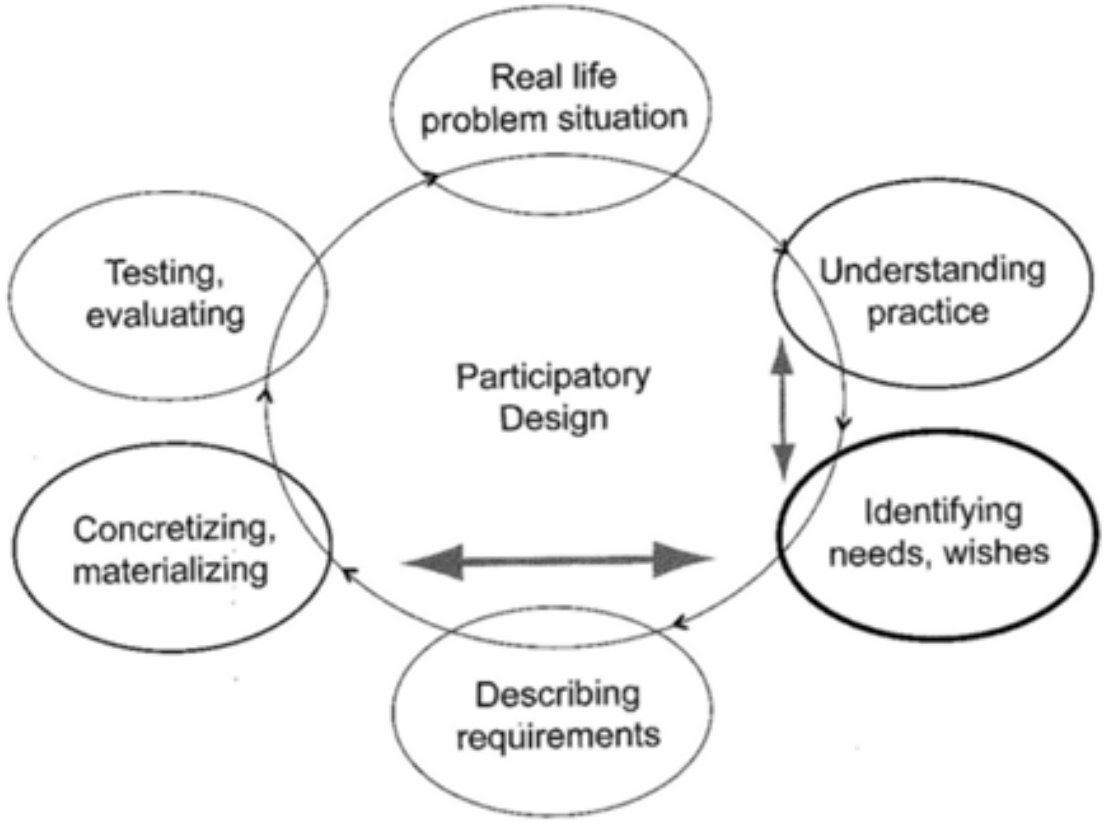


Figure 6.5 The use-oriented design cycle

(p. 128, Handbook of PD)

“There is still a reluctance to have the contribution of the PD community reduced to stand-alone tools and techniques if these are not accompanied by what Sanders and Stappers [Sanders and Stappers, 2008] have called a participatory mind-set” (Brandt et al., 2012).

What is the participatory mind-set?

Bratteteig et al., (2012) sais, “this basic worldview leads us to the three core perspectives: having a say, mutual learning and co-realization”.

In chapter 6 (Bratteteig et al., 2012) the authors describe the general notional understanding of a method: “Method, as a general concept, is often interpreted as a ‘recipe’ for how to carry out a set of activities – Like a cookbook recipe.” (Bratteteig et al., 2012), and further, that this is not how the tradition views the use of methods.

(Ignore chapter 6’s emphasis on the example methods: MUST, CESD, STEPS. Read them, and try to understand why, but don’t emphasise these methods. It is a bit outdated.)

What makes a PD use of methods, tools, and techniques different to other kinds of design processes?

Not a black-and-white world, UCD and PD are based on the same principles of engaging users. There is overlap.

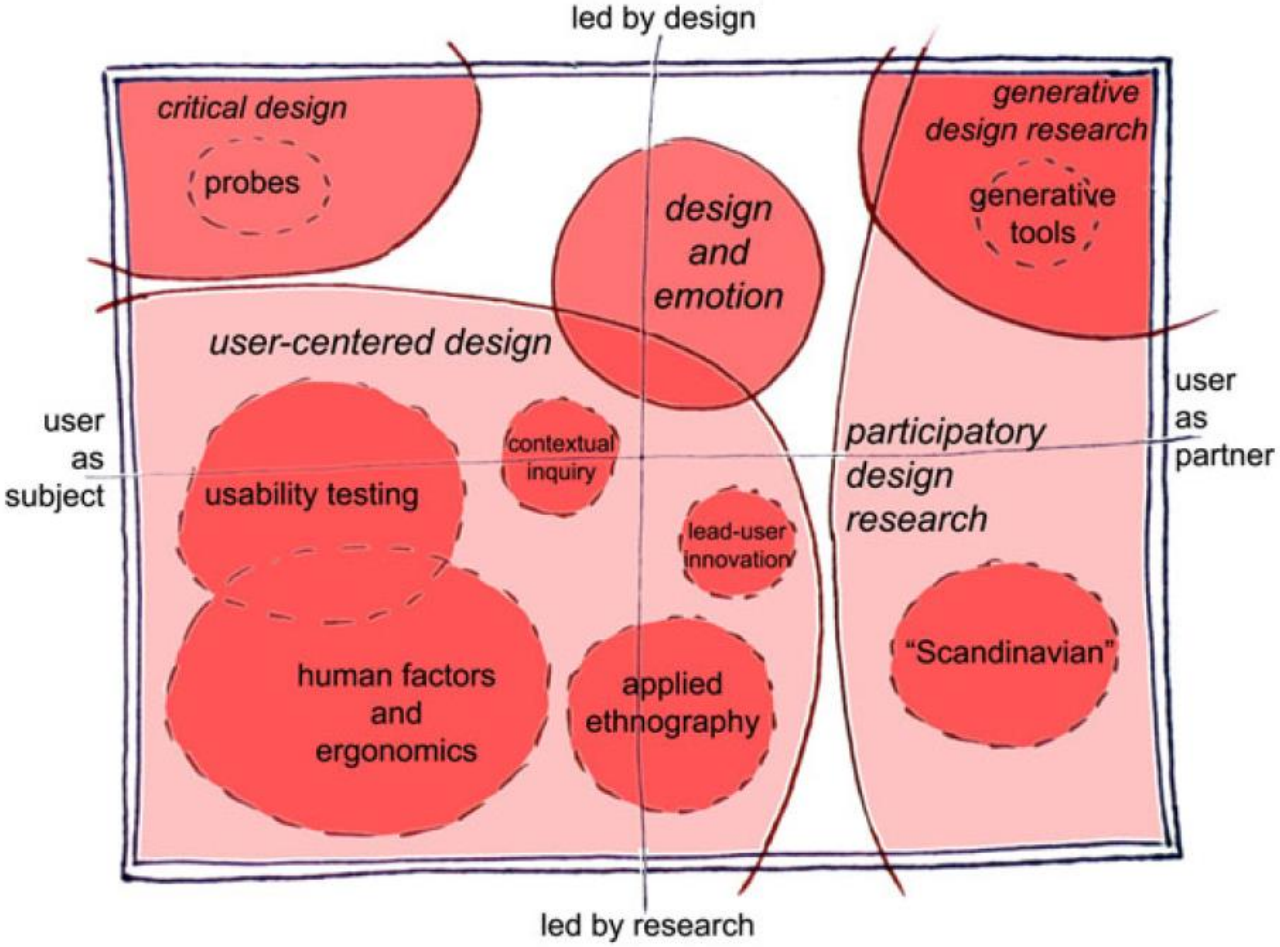
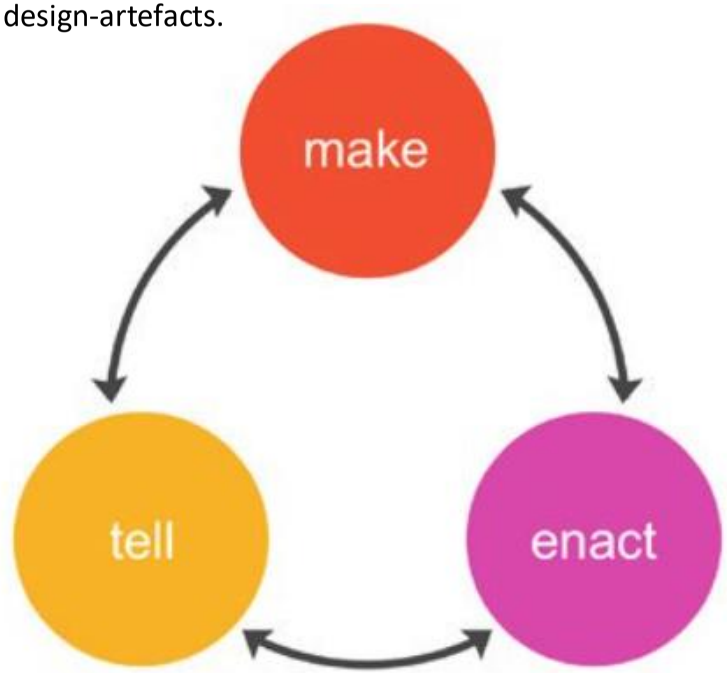


Figure 2. The map of design research, showing different approaches laid along two axes: role of the user (horizontal), and approach of the research (vertical). *Source*: From Sanders and Stappers (2008).

(Sanders and Stappers, 2014)

Different ways to think about the participatory design process

Making: co-design, an important part of making decisions (see Bratteteig and Wagner, 2014), happens in the making of design-artefacts.



Telling: ways of introducing the designer to the context, but also a means for participants to articulate their contexts and explore challenges and problems.

Enacting possible futures: lets participants experience and explore what the future could look like.

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Telling: ways of introducing the designer to the context but also a means for participants to articulate their contexts and explore challenges and problems.

Enacting possible futures: lets participants experience and explore what the future could look like.

Not mutually exclusive activities: in the act of making something, you can ask participants to tell stories about their artefacts, or enact possible use.

People are different: some like telling, some like acting, some like making.

Our responsibility as designers in knowing the *right* way of engaging.

“Things-to-think with” (Brandt, 2007)

Fig. 6 Mock-ups of valves and manifolds from the WORM project. The mock-up to the *left* was from the second workshop, middle third workshop, and the mock-up with the most details to the *right* is from the fourth workshop

Brandt (2007) used high fidelity mock-ups to engage the participants into co-design.

Lower fidelity = broader conversation topics,
Higher fidelity =more specific topics.

Note that such discussions require deep professional knowledge on the subject of these specific valves.

things and, by that, gets further with the design. The design process in the WORM project is best described as reflective conversations with problematic situations and generation of possible solutions through collaboration between users, customers, and the full design team. The reflective conversations were centered

of finishing than the earlier ones (see Fig. 6). They looked as if they could almost work. The amount of details and finishing seemed to affect the communication by making it more focused and detailed. This is

This kind of prototyping, letting the hands on objects of future use lets the user tell stories of the context of use, enact futures on how they would work and, if knowledgeable enough about the topic, be a part of making future iterations (co-creation).

Table 3. The three approaches to making are expanding across different time frames.

	Probes	Toolkits	Prototypes
The world as it is	Cultural probes (Gaver, Dunne, and Pacenti 1999)	Toolkits for understanding experience: a day-in-the-life exercise	Usability testing of an incrementally improved redesign
	Design probes (Mattelmäki 2005)		
The near future	Design Noir (Dunne and Raby 2001)	Toolkits for exploring future experience: my-ideal-future-product exercise	Usability/field testing of a radical new product
The speculative future	Diegetic prototypes (Kirby 2011)	Toolkits for experimenting with experience: make-believe role-playing with co-constructed artefacts	Research through Design prototypes (Keller et al. 2009)
	Artefacts from the future (WIRED magazine)		

From the later work of Sanders and Stappers, (2014), and how making can happen across time, within different time frames, for different reasons.

Table 2. The research phases compared.

Design research	Pre-design and post-design	Generative	Evaluative
Purpose	To understand people's experiences in the context of their lives: past, present and future dreams	To produce ideas, insights and concepts that may then be designed and developed	To assess, formatively or summatively, the effect or the effectiveness of products, spaces, systems or services
	To prepare people to participate in codesigning	What will be useful? Usable? Desirable?	Is it useful? Usable? Desirable?
Results	Empathy with people	Opportunities for future scenarios of use	Identification of problems
	Creative codesigners	Exploration of the design space	Measurement of effectiveness
Orientation	Past, present and future	Future	Present and near future

(Sanders and Stappers, 2014)

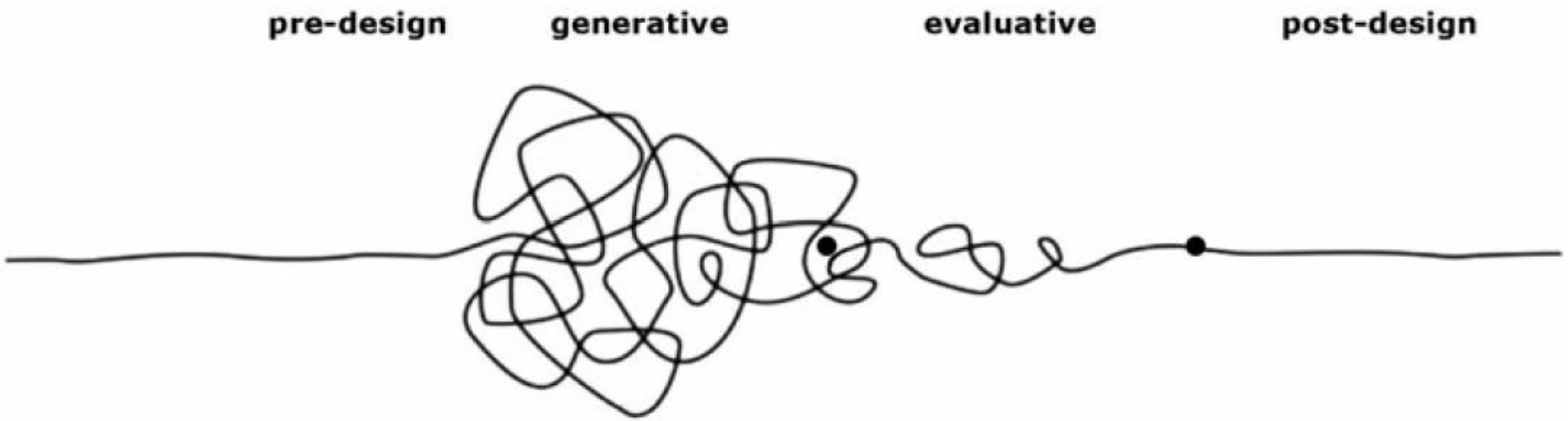

Figure 4. Phases along a timeline of the design process; the first dot indicates the determination of the design opportunity and the second dot represents the finished 'product'.

(Sanders and Stappers, 2014)

Part 3

Examples from practice

Probes

(Gaver et al., 1999 & Visser et al., 2005);

“Gaver et al. (1999) uses the probes for gaining insight into the context as inspirational data to stimulate designer’s imagination, while the generative technique of Visser et al. (2005) seek “a more deliberate and steered process of facilitation, participation, reflection, delving for deeper layers in the past, making understanding explicit, discussing these, and bridging visions, ideas and concepts [scenarios] for the future.”

The difference is in whether you see the subject as subject or partner (Sanders and Stappers, 2008).

The goal of (Gaver et al., 1999): “[..] increase the presence of the elderly in their local communities” (p. 22).

Why Gaver et al., (1999) used probes.

Generational gap

Get access to the deep generational knowledge of the communities that elderly people has experience and accumulated throughout their life.

Combat distance

Physical

Research-researched divide: avoid feeling of being researched.

Figure 1. A cultural probe package.

Postcards

Informal, friendly and suited to people who are familiar with this sort of activity.

This can be seen as an alternative to a questionnaire.

Figure 6. Some of the returned items.

Photography/camera/diary
Asked to photograph their home, what they will wear… casual topics—which they were asked to collect into a diary, telling 'their story'.

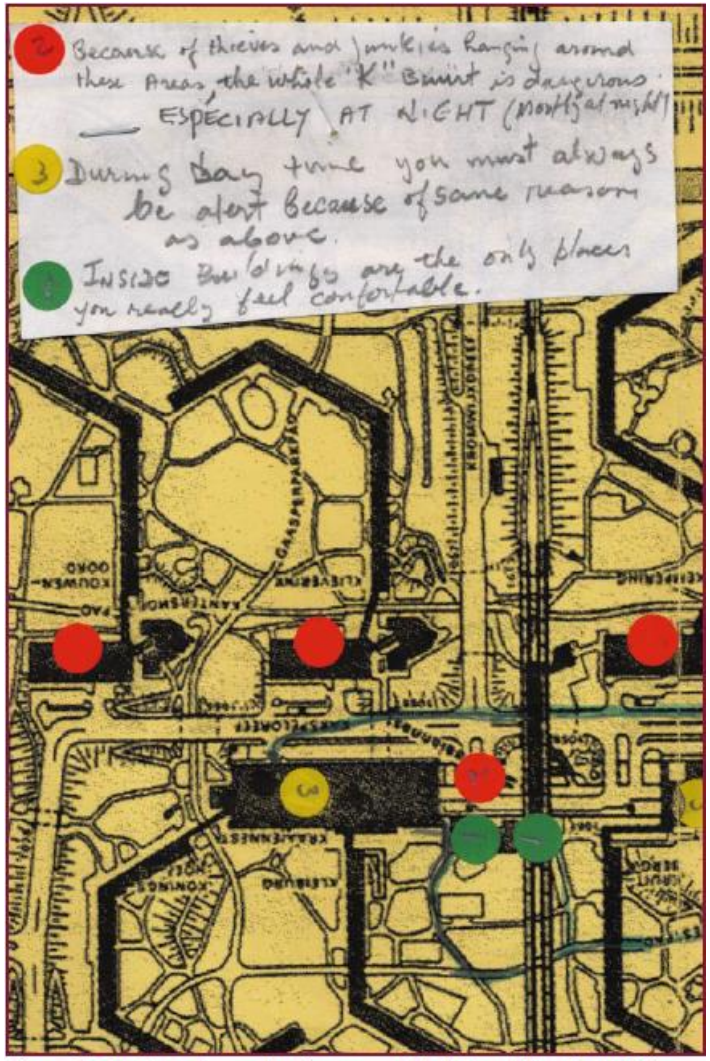

Figure 7. A returned map showing zones of safety and fear in the Bijlmer.

Maps

Inquiry into elderly's use of their local community.
Where they meet people, daydream, to be alone, where they can't go.
Ranging from specific inquiries to poetic.

A different use of probes: probes to sensitize participants (Visser et al., 2005)

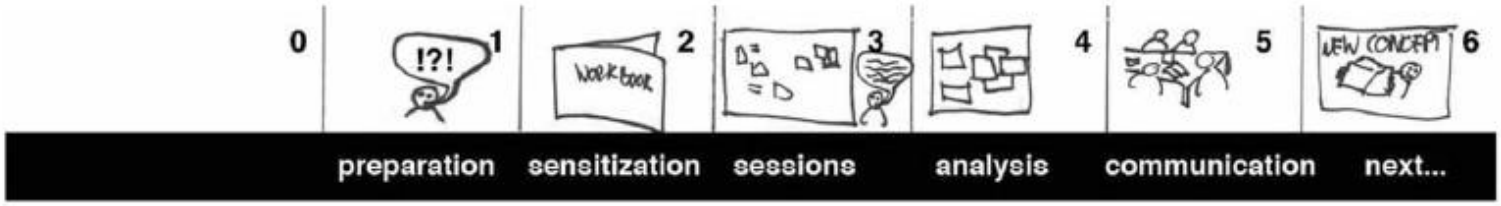

Figure 4. Procedure of a contextmapping study.

"Sensitizing is a process where participants are triggered, encouraged and motivated to thing, reflect, wonder and explore aspects of their personal contexts in their own time and environment." (Visser et al., 2005, p. 123)

Article discusses the advantages and disadvantages of group, pair, and individual sessions.

Collaging

(Visser et al., 2005);

Collaging (and toolkits) are created to better understand day-to-day experience, expore future possibilities, and speculate (think: tell, make, enact) (Sanders and Stappers, 2014).

Participants capabilities, experience, skill, are the limit!

Figure 5. Some generative techniques used in practice by SonicRim.

Toolkits can also specifically be crafted to enable co-creation—as physical prototyping kits for the participants to have hands-on experience with future materials: https://sphero.com/collections/all/family_littlebits

Future Workshop

(Handbook of PD, p. 145-146 & 152-153);

Phase	2-day schedule	1-day schedule	1/2–day schedule
Preparation phase Designing the room, introducing the Theme and working method	1 h	½ h	1/2 h
Critique phase Creating a richer; common image Of the problematic situation	4 h	2 ½ h	1 h
Fantasy phase Generating visions of an improved Situation without restrictions	6 h	2 h	1 ½ h
Realization phase Bringing the visions down to earth and Developing a plan	4 h	2 h	1 ½ h
Follow-Up Phase			

Jungk & Müller, 1987

E.g. Concretizing plans for change, or realizing concrete artefacts.

Method to put all kinds of tools and techniques into.

Sense of how much time it takes to do co-design.

Flexible method for any stage of design (think generative, evaluative, explorative)

Example from practice: Facilitating for capabilities of people with Intellectual Disabilities

Figure 31: The complete Polaroid Diary toolkit

Not to elicit information, but to sensitize healthworkers to become designers on behalf of users. I had already done ethnography to familiarize with the context, and the possibilities for design.

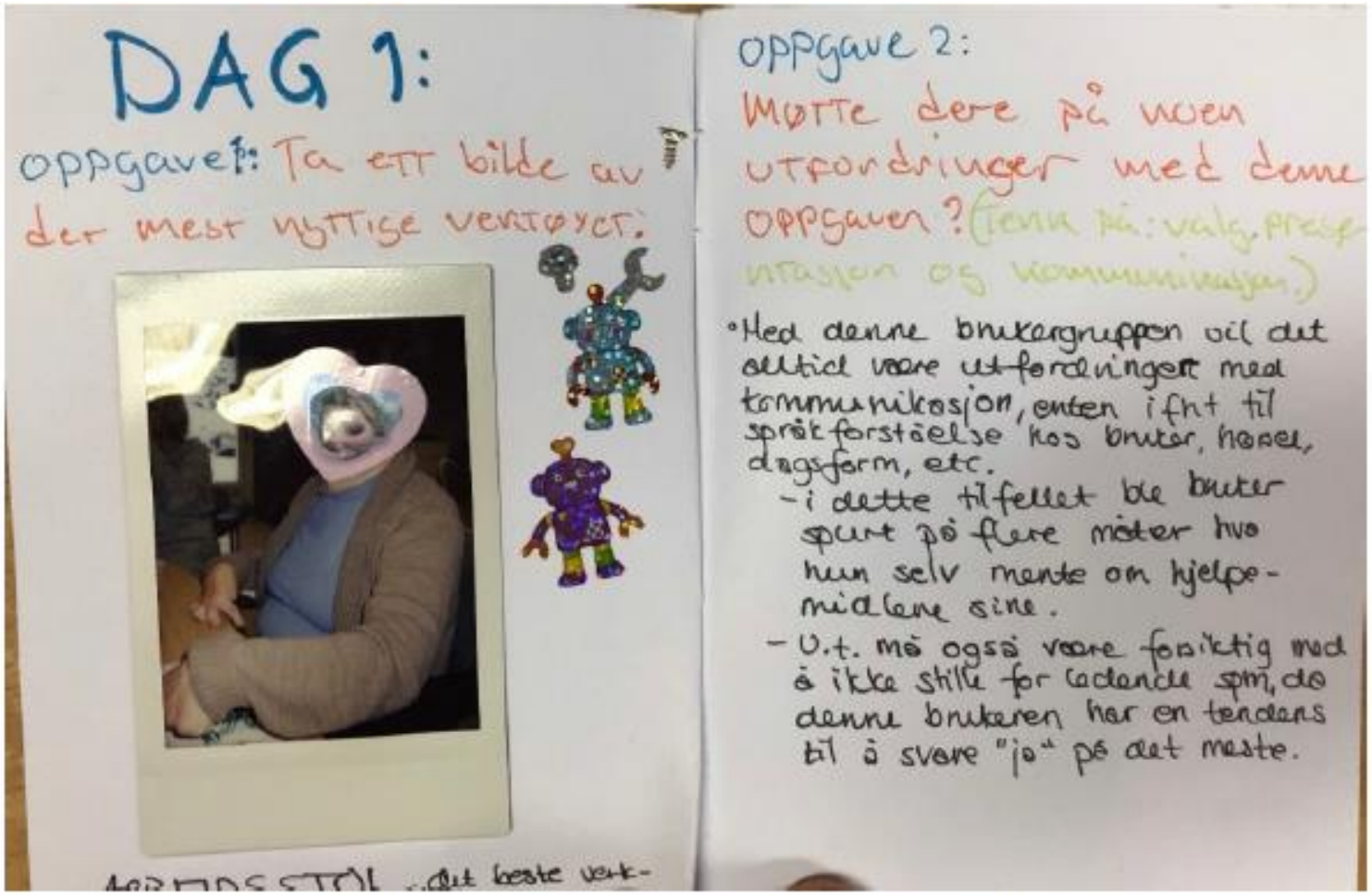

Figure 37: CW4 Reflects on the presentation of choice and cognitive capabilities.

Figure 48: Icons on post-its, used to explore the users understanding.

Figure 47: CW2 exploring U3s capabilities

Figure 43: (left) collaging tools, (middle) U4s screen interaction (right) exploring choice.

Learning outcome from lecture: Why the Participatory Design field emphasize ‘techniques’

Challenge: create/adapt other methods, tools and techniques

(With reflections, will look good in report and exam)
Example from master thesis (Universal Methods of Design 2018)