

Aarhus School of Architecture // Design School Kolding // Royal Danish Academy

The Perform Codesign Experiment – on what people actually do and the relation between program and experiment in research through design

Brandt, Eva; Eriksen, Mette Agger; Binder, Thomas; Redström, Johan

Published in:
IASDR 2015 Interplay

Publication date:
2015

Document Version:
Publisher's PDF, also known as Version of record

[Link to publication](#)

Citation for pulished version (APA):

Brandt, E., Eriksen, M. A., Binder, T., & Redström, J. (2015). The Perform Codesign Experiment – on what people actually do and the relation between program and experiment in research through design. In V. Popovic et al (Ed.), *IASDR 2015 Interplay: Proceedings Publication* (pp. 234-249). Queensland Univerisity of Technology. http://iasdr2015.com/wp-content/uploads/2015/11/IASDR_Proceedings_Final.pdf

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.



iasdr 2015 interplay
BRISBANE | AUSTRALIA

Proceedings

Editors: Vesna Popovic, Alethea Blackler, Ding-Bang Luh, Nithikul Nimkulrat, Ben Kraal, and Yukari Nagai



iasdr



IASDR2015 INTERPLAY

2-5 November 2015, Brisbane Australia

Proceedings Publication

www.iasdr2015.com

ISBN - 978-0-646-94318-3

Design: Manuela Taboada and Carly Hare



The Perform Codesign Experiment – on what people actually do and the relation between program and experiment in research through design

Eva Brandt, The Royal Danish Academy of Fine Arts, Denmark, ebr@kadm.dk

Mette Agger Eriksen, Malmö University, Sweden, mette.agger@mah.se

Thomas Binder, The Royal Danish Academy of Fine Arts, Denmark, tbi@kadm.dk

Johan Redström, Umeå University, Sweden, johan.redstrom@umu.se

Abstract

Design experiments are powerful inquiries, working from the ambiguous and tentative to more firm programmatic statements. In participatory design and codesign, learning and knowing is closely tied to participation – the engagement with and manipulation of shared representations, as participants expose how they become knowledgeable in what they collaboratively make. However, working with codesign as an integral part of knowledge production poses challenges to how we conceive of such inquiries in the practices of research through design. This paper reports from collaborative research where fellow researchers and PhD students carry out a codesign experiment (in the Xlab meta-project). The intention of the paper is twofold but intertwined: to get closer at what it is that people actually do in a codesign experiment situation; and to further investigate the relationship between program and experiments. We will give examples of the considerations and crises faced by the participants and how they try to solve them. In addition, we suggest using the notion of ‘sub-program’ as a way of describing the framing of a specific experiment thus adding to the program-experiment dialectics in the designing and doing of experiments.

designing codesign experiments; research program; experiments/program dialectics; experiment sub-program; meta-reflections; knowledge production

For more than a decade, we have developed and explored a practices-based approach to design research that is centered on the notions of programs and experiments. In the Xlab project (2006-2007), a meta-project, built upon a series of codesign experiments with design researchers and PhD students (entitled Beginnings, Perform and Intersections), we aimed at

exploring this further. Instead of investigating design experiments through a theoretical or methodological approach, the aim in the Xlab project was to explore design experiments and their relationships with a research program, through practical explorations of the practices of design researchers.

Based on that project, we have argued that this kind of research through design is centered on an explicit formulation of a design program and that this acts as a foundation and frame for carrying out a series of experiments (see e.g. Binder & Redström 2006, Hallnäs och Redström 2006, Brandt and Binder 2007, Koskinen et al. 2008, Redström 2011, Brandt et al. 2011, Eriksen 2012, Bang & Eriksen 2014).

Designing Design Experiments

Working within the field of participatory design (see e.g. Simonsen & Robertson 2013), the staging of provisional spaces of co-exploration that allows for the simultaneous rehearsal of what could be done and how this can be accomplished (Halse et al. 2010), has for many years been an important driver of our research (Binder & Brandt 2008, Binder et al. 2011). However, as we will discuss here, we are simultaneously curious about how the design and doing of experiments may be turned towards the design research process itself.

When staging the initial collaborative inquiry within a specific codesign project we have often found it useful to use design games as a platform (see e.g. Brandt 2006, Brandt et al. 2008). Amongst others, we were initially inspired by the pioneering work of Habraken and Gross (1987) on concept design games. Habraken and Gross developed design games with a strong affinity to Wittgenstein's notion of 'language games' in which particular design themes could be explored in an artificial and restricted setting sharing important process characteristics with real life designing. Players explore interactions mediated through the collaborative manipulation of a fixed set of game pieces following a few well-defined rules. In the context of designing the experiment of the Perform workshop, we found it interesting to get close to the original intentions of Habraken and Gross' work, by thinking of design games as tools for research.

The Perform Experiment

The Perform Experiment explored the learning process of the codesign experiment situation. Because the meta-purpose was to reveal aspects of experiments in research through design, rather than to support effective designing, it was possible to explore these aspects by building upon more extreme approaches, which would allow us to push certain issues further. Inspired by Silent Game (Habraken & Gross 1987), as well as framing formats from sport and 'reality' TV-shows, in the designing of the experiment, we created a workshop format with strict rules about how the participants would be allowed to communicate.

Part of the open invitation to the Perform workshop is illustrated in Figure 1. It includes a description of the research interests and aims of the XLab project (the overall XLab program as it was formulated at the time) and the ‘topic of the day’ and ‘design program’. This part of the invitation describes mostly ‘what’ are the aims and focuses of the experiment. The other part of the invitation can be found in Appendix A and further describes ‘how’ to go about experimenting.

XLab is a small research group at the Danish Centre for Design Research, investigating the role of experiments, programs, interventions and participation as well as the exemplary in experimental design research. Experimental design research is to be understood in a broad sense as design research, which involve exploratory experiments, either as the researchers own designerly experiments or research interventions in other peoples work. The aim is to contribute to a stronger methodological and theoretical foundation for this type of design research, as well as to explore different strategies for designerly intervention as part of the exploratory research within different genres of the design field. The project is build around three open workshops, which each explore and challenge different questions in relation to the overall issues, and the goal is to publish the work in a book-format.

PerForm is one of the three workshops – it is a silent experimental workshop where participants collaboratively explore the potentials of 3-dimensional material communication and design by making. Experiments will be in relation to a selected topic for the day, which is:

Topic of the day:

Decision-making device(s) for interdisciplinary collaborative design work

Design program...

A decision is made as we contemplate the advantages and disadvantages of our options...Which options? We concentrate on differences between alternatives... We think about these differences and their relative importance... At some point, a decision is made; differences reach equilibrium. To support the process as we can not speak, we have to manifest options, materialize and visualize differences, and try to maintain balance while still moving... Thus, we try to really ‘make’ decisions.

The aim of the day is to practically explore and experiment with the following XLab research questions relating to the overall issues of interest. They will also be used as guidelines for the verbal post-reflection, which is part of the agenda:

- The relation between program and experiment; how the experiment unfolds to express the intentions of the design program.
- How to govern the process through stages of open exploration, via mapping out the potential design space to finally arriving at a more detailed design proposal.
- How collaboration and negotiation is handled (as we can not speak) through the use of concrete design suggestions; the relation between our own ideas and the common traits that develops as we collaborate.

Figure 1: Part of the Invitation for the Perform workshop. It included a description at that time of the Xlab project and research interests, the specific ‘Topic of the Day’, and ‘Design Program’ for the particular Perform experiment – the ‘sub-program’. The main organizers set the twofold focus on decision making (devices).

Setting the stage

The overall agenda followed a quite typical path for exploration and decision making during a participatory design event – a path of opening up through the production of a variety of ideas, followed by activities of sorting and organizing these ideas, towards zooming in by negotiating the design of one shared proposal, and finally time for immediate reflections.

To challenge this, however, the co-designing was to be performed in silence, thus forcing the participants to communicate by means of the materials at hand by crafting and modifying

concrete design sketches. There were only two exceptions to this silence. First, there was a possibility for each participant to take one ‘Time-Out’ during the day, in which he or she could talk to the others (but these other participants were not allowed to respond unless they also used their Time-Out). Second, there was a ‘Confessional’ in a room next door, where one could retire and video-record reflections and comments during the day.

An experiment in four steps

With the ‘design program’ (see figure 1 and Appendix A) in our pockets and on the walls, a stack of white foam boards (20x20cm) on the table and a ‘buffet’ of tangible design materials, the first step was to brainstorm in order to create a repository of proposals inspired by the topic of the day.

Before getting started, everyone were encouraged to use the foam boards as a base for the ideas and brainstorm collaboratively (figure 2).



Figure 2: First step: Left: Part of the buffet with materials and some of the participants.

Right: Silent brainstorming through assembling materials.

The next step included sorting and grouping the proposals. This is a quite typical way to help decide which cluster of ideas or which path to follow when later designing one shared proposal. We had not made any explicit game rules e.g. turn taking or ways to categorize for this activity. At some point it was allowed to add small Post-it notes with keywords on the proposals (see examples in figure 3).



Figure 3: Second step: Left: One state of a changing landscape of proposals while sorting and grouping. Right: Now also by attaching keywords on small Post-it notes.

After lunch it was time to start codesigning the one shared proposal (see figure 4). Bigger foam boards in double size (40x40cm) were provided.

The final step included individual reflections of the experiences, debriefing, and post reflections in plenum – all on video and brief written notes.

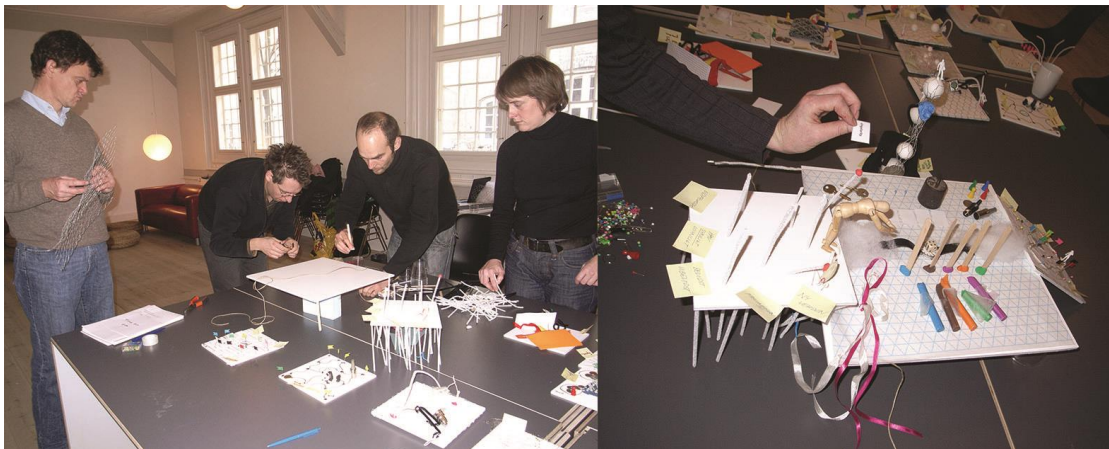


Figure 4: Third step: Creating one shared proposal in silence.

The Perform Experiment is more extensively documented in the ‘XLAB’ book by Brandt et al. (2011) where all three experiments and the main findings of the Xlab project at that specific time are described. Likewise, in Eriksen’s PhD thesis (2012) the Perform experiment was mainly analyzed with a focus on the roles of the participating materials in the process. As something new, the following discussion will get closer to what it is that people actually do in the experiment situation.

Discussion

In the first part of this section, we will discuss questions such as: What is it that people do in a codesign experiment? What are the crises they face in the experiment situation? How do

they try to solve these? In the last part, we will return and add to the discussion on the program and experiment dialectics.

To explore these questions, we will use observations and transcripts of the video recordings from the ‘Perform’ workshop, which apart from us (four researchers from three different institutions in two Scandinavian countries) also involved three PhD students from various institutions. Two of us participated actively while the other two facilitated and documented the day. We will especially look closer at the oral expressions in the Time-Outs and Confessions, actually made during one hour and ten minutes while codesigning one proposal, to learn more about what seems to drive the participants in the experiment situation.

Moving in with something at stake

When introducing the program, everyone was encouraged to brainstorm collaboratively. However, when closing the brainstorming, all 28 proposals had been produced individually. Everyone started out by picking up a white foam board for making their own first ideas. Then they sometimes moved straight onto the next idea, sometimes strolling around a bit to look at what the others were doing.

We do not know if the individual work was a result of how the workshop format required people to actually make something first in order to be able to express their ideas as they could not just be spoken or if it was because of the properties of the foam boards as such, e.g. that their size made it difficult to work two at the same time. Whatever the reason, an interesting observation was how these early stages of brainstorming and presenting ideas were slowed down noticeable because of the time it takes to craft three-dimensional material sketches rather than speak ideas. It exposed how the workshop format shaped the process quite firmly at this stage despite the rather general and vague written instructions on the topic and program.

Invitation, appeal, telling, and confrontation

For negotiation to happen, participants must somehow agree upon certain boundaries or conditions for potential outcomes. Often in (codesign) projects, there are things already given that will have this stabilizing effect, such as knowledge about previous products of a similar kind, but in this case we deliberately tried to avoid such proto-types in order to expose how this basic decision-making takes place in and through design moves.

Creating one shared proposal evolved very quickly, which seemed too quickly for some. Just five minutes after the lunch break, when they started this activity, one of the players, A goes into the ‘Confession booth’ and complains that he has been preparing a move, but feels left behind by the others, as he prepared the material he wanted to bring in. Now the shared artifact is at a point where he cannot find a way to fit it in. As in other conversations, he has to wait for the right moment and find a way to engage with what the others are doing.

What is made on the board does however seem somewhat cluttered and one senses a struggle among the different players. Several ideas are pursued in parallel, and the different contributions appear to get in the way of one another.

Ten minutes into the session, A is the first to take a Time-Out. By making an open invitation to explore an idea in more depth, he succeeds in giving the process a direction. He is back into the game. A said:

“ ... I saw some shadows on the board. I think it was a really good idea – the thought about having some resources that we in one way or another could use to create images together. [...] So now I take this one off [He moves the proposal that was in the center of the device being built] just as an invitation to try it [...] Then I have used my Time-Out on inviting the rest of you to...”

A does not finish his sentence. The reason might be that one of the other players starts to fiddle with an electric torch. Soon everyone engages in using torches and various other means like transparent filters to explore A's idea. As a matter of fact, this period of some minutes is the only one during the whole day when all five players simultaneously seem to explore something collaboratively. Looking closer at his move shows that what is said has a counterpoint in what he does to the common construction. What he removes is actually a very central part of what the others have made, so the openness of the invitation goes together with a radical change in what they have to work from. His move is one of persuasion (to explore a specific idea) but also of a certain force. Thus, the Time-Out is used strategically to mobilize the other players around his move.

Eight minutes later, D takes his Time-Out. D expresses a strong certainty about what they are to build. He makes an appeal to the other participants to remedy what is missing in order to reach the goal. At the same time, he is bothered by his own building attempts. D said:

“... What we are to do is a design game so there has to be time in it. And, time means that something changes, and because it is a game then there has to be some rules or mechanisms that [...] indicate that other phases can come. [...] Implicit in this idea [... there] are not really any rules for how the participants shall act. [...] It is more a landscape to play in [what] we are working on. [...] I keep placing these pieces and this dice in the center, but I think it is a pitiful attempt to create rules. But conversely, I cannot find out how to illustrate this about rules. [...] We have to find out if we are creating a landscape, or if we are creating something that has an extension in time”

Where the first Time-Out was presented as an open invitation for joint exploration of a specific idea, D's Time-Out has a different character. D talks more generally about what they are doing. He insists on his position and tries to convince the others to adopt his view. The Time-Out both reveals struggles he experiences in the process and his various attempts to solve them. He appeals by making it obvious what they are to do, and what is lacking. Then again, he recognizes that adding time and rules by only using tangible means is not that easy

after all. However, what perhaps is the most striking thing in that he does not accompany his Time-Out with a constructive move.

Thus, the appeal of D is an attempt to leave the doings of codesigning and fix what is not right through an oral appeal argument. From what is said, we sense that D experienced a kind of crisis in his involvement. This crisis has several aspects. One aspect concerns the idea that he is certain about what they are doing but senses that the other players have other goals or understandings. When the other players keep moving his pieces and the dice away from the centre, he feels rejected as his contribution is not accepted and valued. A second aspect is, though probably connected to the first, more individual and personal – a dissatisfaction concerning his own attempts. In this case, D is open about his struggles. He explains what he tries to do and how pitiful he thinks the attempts are. Last, D wants them to take a stance on whether they are creating a landscape or something that has a time dimension. To him it is two different things and the sense of crisis here is about lacking allies for pushing the issue of time.

The appeal made by D does not have a strong impact on what is built afterwards. Only six minutes later, C uses his Time-Out to tell how he understands the ‘device’. C’s comments can be seen as a reaction to D as he relates to both the time aspect and to the issue of landscape versus game. C says:

“I see it as something between a landscape and – I will not say it is a game, but there is kind of a timeline, [...] there are both a starting point, and something about that you can walk through the landscape. [...] The string can be changed. Everyone can change it. It is a kind of variable here, and the landscape can also be changed. So I see this a little more as a ‘decision device’, [...] represented by this string, and then you put some obstacles on it. It is variable in many ways [...] So this is what I think we shall use it for”.

As seen, C does not accept D’s view and hereby rejects his appeal. Like D, he does not accompany his Time-Out with direct interventions in the shared construction, but he *tells*, for instance, how meeting obstacles walking in the landscape makes it a decision device. In his reading, they have made a flexible decision device as both the landscape and the route within it can be changed. C presents an including attitude towards what has been made so far, but by giving his both inclusive and comprehensive reading, he is also making a strong push for continuing in a certain direction. He makes the strong push by sharing his interpretation of specific elements of the device.

But, the wrestling has not come to an end. The building process has not reached closure. Eight minutes later, the field is again open for contest. The last Time-Out is made by E. Before taking it, she removes the upper central part of the device. E says:

“Now I believe that I have done something radical by moving the center again. [...] I wanted to tell that I liked the idea with the shadows, but I also miss peace in all this mess. This is the reason why I have put up some walls so you can create some distance [from] everything, and

sometimes you also need distance [from] each other despite that it is interdisciplinary. So with this, I just wanted to speak for space for some peace in our little world”.

As in the first Time-Out, radical changes of the device are here again accompanied by a Time-Out. But, unlike in A’s invitation, E is contesting the previous moves as she does several things. First, she removes quite a few things in the center of the device. It makes it less crowded and reveals some free space. Second, she uses part of this space to create walls for ‘peace’. Like D, she wants a new agenda, and seems ready to fight for it. Where D is unsuccessful in his appeal, E puts the entire collaboration at stake by moving many things in the center of the device and replacing these with her specific suggestion. (As it turns out) she is successful in getting the other players to join her, probably as they realize that the alternative would be to take what is collaboratively made, even further apart.

Interestingly, even though very early moves when creating one shared proposal had a stabilizing effect for what then happened, the programming of the Perform Experiment was not able to make the transition from exploration to negotiation and finally, decision.

What these brief glimpses tell us is that codesigning is not smooth explorations of actions, which can easily be directed or even reflected upon by temporarily stepping out of ‘action mode’. On the contrary, the episodes reveal interactions in which what is said and what is done are inseparable statements in the situated and emerging “language game” of codesigning. A makes an invitation in his Time-Out not merely by what he says but by joining his proposition with a single dramatic act on the board that can be reversed by the other players. C is making a strong move in his telling of the device, even though he does not touch the materials on the table, because he joins together what is there in one strong narrative about how the device is working, etc. What we see is that basically there is no opportunity for timing out.

Learning through the experiment

Looking through the Time-Outs, Confessions, and the final Debriefing reflections made by the participants, one can get a sense of what is learned through the Perform Experiment.

Some of the players use the Confessions to think about strategies and tactics of participation. While, for instance, C in his Time-Out takes an open and including attitude towards what is made, his Confessions reveal more nuances. Here he tells the camera how he really wants to remove a lot of things from the device to make it simpler. He wants a device with firm rules, but on the other hand, he is afraid that too strong moves from his side may ruin things that are good.

Along the same lines, A’s first Confession is concerned with understanding the role taken by the different players and the consequences of early moves or radical interventions. He is looking for patterns of interaction that may go beyond the particular setting, and perhaps for tactics that can be learned and carried along by the individual players. E, on her side, tells

about an early confusion about how to act in the session, as the common work to her obviously does not have the kind of aesthetic orientation that she is used to in her professional context as a designer. She reacts to the apparent differences among the players, but after a while she finds it very instructive when she is able to follow and react to “*what the others are doing*” to the shared artifacts.

One of the most striking things that was pointed to in the final reflections (which were given individually to a video camera as the workshop ended), was the need to try out the device. Where some of the players appeared to see the codesign experiment primarily as a sort of testing ground for other later codesign activities, or even as a kind of metaphorical game mirroring rather than enacting design, the two players with the strongest traditional design background insisted that what was made had to be taken further into an actual work with design decisions. They saw what was accomplished not primarily as something to learn from but as something to learn through. Even if this was not taken further in the workshop, they both pinpointed the opportunity to explore their own projects by engaging the device literally with the issues from their project by walking through the landscape and the paths laid out. One argued that having to use the device afterwards would probably have changed the process of co-designing as the players then were more obliged to focus on the result.

In D’s normal work practice, he has been part of developing and commercializing a design game solely based on images. When reflecting on his learning from the experiment, his last confession highlights that the tangible materials are able to refer to a far broader span of concepts, ideas etc. than two-dimensional images.

To sum up, learning in the experiment happened at least at three levels, that all relates to the ‘shared language game’ that evolved in the codesign workshop. Some participants pointed to what they learned from the tangible media of communication, as something to carry over into new (and potentially very different) codesign experiments, some emphasized what was learned in terms of strategies and tactics of design interactions, and finally some participants insisted on learning from the particular ways the issues of decisions were handled in the workshop.

Program/experiment dialectics – acknowledging the experiment’s sub-program

In order to describe the core dialectics between program and experiment(s) we will return to two of the main diagrams that we developed and explored during the Xlab project (see fig 5). The diagram to the left illustrates that the overall research question is larger than the actual research project, in the sense that different research groups often focus on similar issues and questions but apply e.g. various research methodologies, relate to various contexts etc. to investigate the research matter. We have argued that the program that frames the experiments is always provisional, and that the “experiments are exploratory probes into what the program may entail and how it can be expanded and sharpened to account for how the experiments unfold” (Brandt et al. 2011, p. 25).

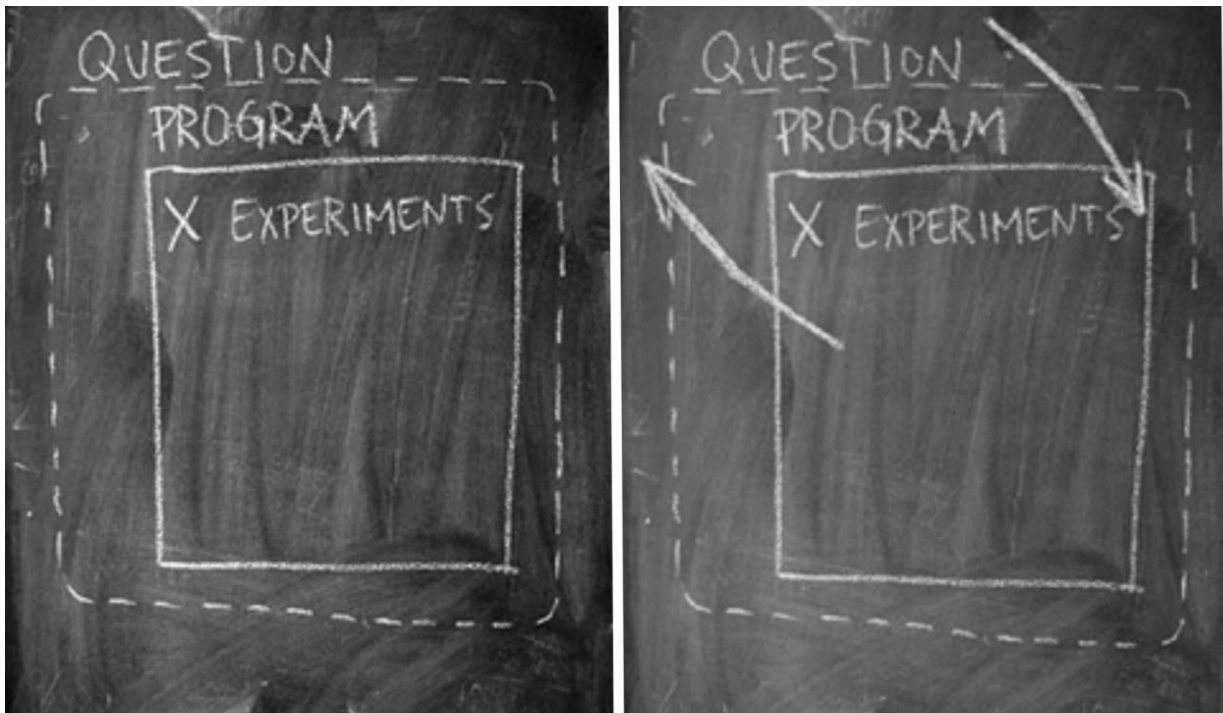


Figure 5: Two of the original Xlab diagrams drawn and explored during the various Xlab workshops (Brandt et al. 2011 p. 24, 26). See explanations in the main text.

The diagram on the right in Figure 5 illustrates that what initiates a research project differs. The Perform Experiment was initiated on the basis of the overall program of the Xlab project. The aim of the Perform Experiment was to explore an actual experiment situation in detail. Thus, one can say that the Perform Experiment was initiated from the ‘outside’ in. But, as illustrated in (Brandt & Binder, 2007) e.g. the research by Niedderer (2004) was “initiated by a design experiment combined with reflections on her own practice as silver and tableware designer including the use of the specific ‘social cups’” (Brandt & Binder 2007, p. 6).

The Perform Experiment paraphrases the ordinary codesign experiment. It aimed at creating and exploring a space for experimentation that went beyond words but simultaneously engaged work practices that were familiar to the professional designers. The intention in the Perform ‘design program’ was to make a ‘decision-making device(s) for interdisciplinary collaborative design work’, and the framing of how to go about doing it was amongst others, based on game elements and inspiration from sport and TV shows. Through a smaller sample of snapshots, we hoped to have illustrated the dependency between program and experiment. As an addition to the overall Xlab program, without the specific Perform so called ‘sub-program’ there would not have been a direction for this experiment. Then, what the participants would have done, we have argued, would be the same as undirected exploration or tinkering.

The Perform sub-program is suggestive and can be seen as a hypothetical world-view (Binder & Redström 2006), and the result of the experiment is an example of what can come

out of it, when a group of design researchers tried to make it into something ‘real’. The very strict rules for communication that limited the possibility to talk, slowed down brainstorming and forced the players to look for other ways of collaborating. As illustrated above, this programmatic choice provided new learning experiences for the participants. Thus, we will argue that games and other ‘scores’ can be very important in designing codesign research as they can assist us in becoming more knowledgeable about how research experiments can be conducted. Yet, the aim of this paper is also to acknowledge the important role of the sub-program of a concrete experiment in programmatic research through design.

As illustrated, the Perform sub-program (manifested in the invitation for the workshop) set a frame for what to do and how to act in a restricted but also open and suggestive way. More generally this means that in the actual experiment situation the participants need to interpret the program and contribute to the experiment, accordingly. The specific ideas that were created and the Time-Outs clearly show that the interpretations of the program differ from person to person, and that this results in various struggles and crises about how to contribute to, and make the experiment move on.

As an addition to the program/experiment dialectics we therefore wish to add to and clarify that the detailed program for the Perform Experiment should be seen as a sub-program in relation to the overall program (in this case of the Xlab project). As long as experiments are to investigate various parts of the overall research program, as captured and summarized in Figure 6, we thus claim and add to previous work on program/experiment dialectics, that it is in practice necessary to frame each experiment by a sub-program.

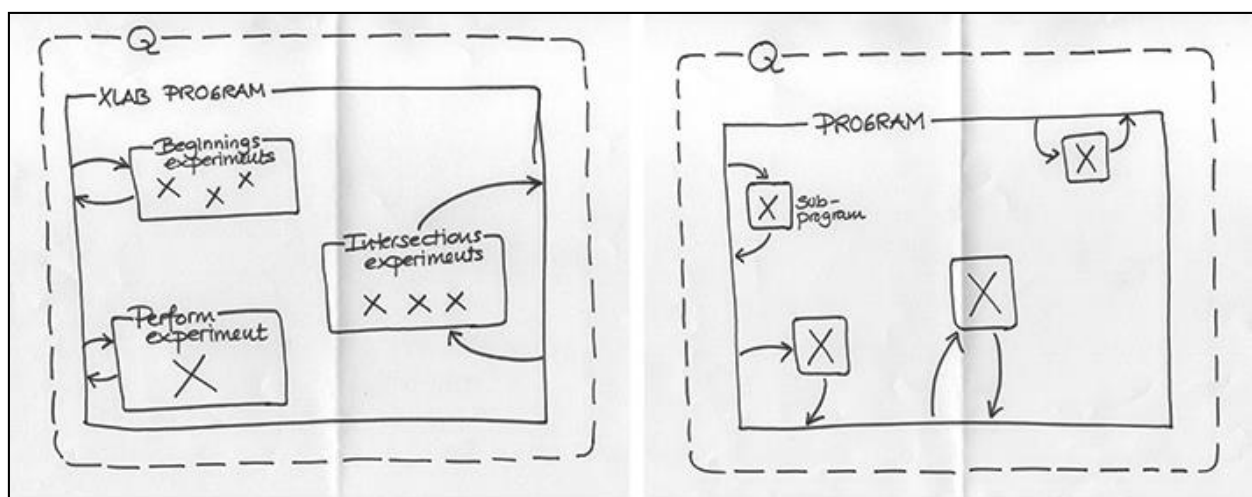


Figure 6: Left: The Xlab project/program, amongst others, explored and sharpened through three workshops with different experiments. In practice, each of these had its own sub-program framing the doing of the experiments. (Beginnings and Intersections are further discussed in Brandt et al. 2011 and Brandt & Binder 2007). Right: A general diagram illustrating the relation between the overall program and experiment sub-programs.

Conclusion

The Perform Experiment paraphrases the ordinary codesign experiment by working with a highly restricted and somewhat ritualized set of rules and materials, and by addressing a core issue of codesign itself: how to collaboratively negotiate, reach closure, and perform decisive design moves. Through a smaller sample of snapshots, we have indicated how the issue of decisions turns up both in the machine enacted and in the negotiations simultaneously staged in the interactions among participants. From this report and analysis of on the Perform Experiment, we will claim to have demonstrated the potential of such codesign experiments as a part of research through design.

We see codesign as a “rehearsal” of new prototypical practices, and we have shown the strength of games or more generally (with a loan from Fluxus) “scores” to capture and make mobile “evolving language games” that make participants knowledgeable within a particular design inquiry. On this background, we still suggest that there continue to be interesting issues to explore in the details in order to better understand how knowledge is produced through codesign experiments. Additionally, that turning such experimentation also towards the research process itself has something valuable to reveal.

We do not claim to have laid out a full account of the experiment situation and what it tells us about decisions in design. We will, however, argue that what is tentatively revealed in the experiment is an as-if world (Schön 1983) emerging in interactions where both concepts and actions related to decisions are put into play. This as-if world is provisional in the sense that it is deliberately playfully removed from immediate consequences for the project contexts of the participants, but what we see in the experiment is actually that this does not mean that the participants can temporarily opt out of the interaction. On the contrary, it seems as if what emerges in the interaction increasingly through the experiment becomes manifest as a ‘language game’ of design and decisions in which new knowledge is already contained. The border between a change to the tangible materials of the experiment and the reflections and directions stated in ordinary language is disappearing in this language game, and consequently, as some of the participants suggest, the inquiry must continue to deploy what is commonly constructed.

Additionally, in the paper we have used the Perform Experiment and Xlab meta-project to further extend the understanding of program/experiment dialectics in research through design, and have argued for acknowledging the notion of ‘sub-program(s)’ framing the individual experiment(s) in relation to the overall research program.

References

- Bang, A. L., Eriksen, M. A. (2014). Experiments all the way in programmatic design research. In *Artifact*, 2014, volume III, Issue 2, Pages 4.1 – 4.14.
- Binder, T. and Redström, J. (2006). Exemplary Design Research. In Friedman, K., Love, T. and Corte-Real, E. (Eds.) *Proceedings of Design Research Society Wonderground International Conference 2006*.

- Binder, T (2007), Why Design:Labs, in web proceedings of Nordic Design Research Conference 2007. Stockholm,
- Brandt E., Messeter J., & Binder T. (2008) Formatting design dialogues – games and participation. In Binder T, Brandt E and Gregory J (guest editors) CoDesign –Vol. 4, No. 1, , p. 51 – 64. Taylor & Francis.
- Binder, T., & Brandt, E. (2008). The Design:Lab as platform in participatory design research. In CoDesign, International Journal of CoDesign in Design and the Arts. Volume 4 Number 2, June 2008. Pp. 115 – 129. Taylor & Francis.
- Binder, Thomas; Brandt, Eva; Halse, Joachim; Foverskov, Maria; Olander, Sissel; Yndigegn, Signe (2011). Living the (codesign) Lab. Proceedings of the Nordic Design Research Conference (NORDES), Helsinki.
- Brandt E. & Binder, T. (2007). Experimental Design Research: Genealogy – Intervention – Argument. Proceedings of International Association of Societies of Design Research Conference, Hong Kong 2007.
- Brandt, E., Redström, J., Eriksen, M.A., Binder, T. (2011) XLAB. The Danish Design School Press. Denmark.
- Habraken H. J. & Gross M. D. (1987). Concept design Games (Book 1 and 2). Design Methodology Program, MIT, Cambridge.
- Halse, J., Brandt, E., Clark, B., and Binder, T. (2010). Rehearsing the future. The Danish Design School Press.
- Hallnäs, L. & Redström, J. (2006). Interaction Design: Foundations, Experiments. Textile Research Centre, Swedish School of Textiles, University College of Borås and Interactive Institute.
- Koskinen, I., Zimmerman, J., Binder, T. Redström, J. & Wensveen, S. (eds). 2011. Design research through practice. Imprint: Morgan Kaufmann.
- Redström, J. (2011). Some notes on program/experiment dialectics. In web proceedings of Nordic Design Research Conference 2011, Helsinki. www.nordes.org.
- Schön, D. (1983). The reflective practitioner: How professionals think in action. Basic Books.
- Simonsen, J., & Robertson, T (eds) (2013). Routledge International Handbook of Participatory Design. Routledge, Taylor & Francis Group. London and New York.

Author Biographies

Eva Brandt

Eva Brandt is Professor at The Royal Danish Academy of Fine Arts, Schools of Architecture, Design and Conservation, and holds a Ph.D. in Science and Technology Studies (2001). Eva is co-leading the Center for Research in Codesign, Co-production and Social Innovation, in short CODE. Since September 2014 she has been part of the main faculty for a two year international MA-program in codesign. The main part of her research is about how designers can stage open design processes (design labs) with many participants who both can inquire into existing practices and explore possible futures in common. She also contributes to theorizing about experimental design research driven by programs and experiments. She has been contributing to several books such as Design Spaces (IT Press, 2005), Rehearsing the Future (The Danish Design School Press, 2010), XLAB (The Danish Design School Press,

2011), *Facilitating Change – Using Interactive Methods in organizations, Communities and Networks* (Polyteknisk Forlag, 2011), *SeniorInteraction – Innovation Gennem Dialog* (The Royal Danish Academy of Fine Arts, Schools of Architecture, Design and Conservation, 2012) and *Routledge International Handbook of Participatory Design* (Routledge, 2013), and has been chairing the Nordic Design Research Conference in 2013.

Mette Agger Eriksen

Mette Agger Eriksen is senior researcher in Co-designing at Malmö University, Sweden. She has a background as an architect specialized in Industrial and Communication Design. Since 2001 she has been engaged in several large, international participatory design projects mainly in Denmark and Sweden, intertwining in her participatory / co-design research. In 2012, she defended her PhD thesis "Material Matters in Co-designing", amongst others arguing for a broad understanding and staging of various roles of 'materials' in codesigning practices. Throughout the study she was applying an experimental and programmatic design research approach. Her postdoc studies (2012-14) were focusing on boarder-crossing ways of collaboration in sustainable urban transition processes mainly internally in local governments - and particularly applying a participatory gamedevelopment research approach as a way to reveal insights. Currently as a senior researcher she continues parts of this work also with focus on different forms of emerging "labs" as parts of the complex local governance landscape. Amongst others, throughout the years she has co-authored the XLab book and various articles on the topic of experiments and programs in design research.

Thomas Binder

Thomas Binder is Professor in codesign at the Royal Academy of Fine Arts Schools of Architecture, Design and Conservation and holds a Ph.D. in Science and Technology Studies. He is part of the co-design research center, CODE engaging open design collaborations and participatory design in the context of design anthropology, interaction design and social innovation. His research includes contributions to methods and tools for experimental design research and open innovation processes with a particular emphasis on participation and learning. He has been contributing to several books such as *Social Thinking – Software practice* (MIT press, 2002), *(Re-) searching the Digital Bauhaus'* (Springer 2008), *Rehearsing the Future* (Danish Design School Press, 2010), *Design*

Research through Practice (Morgan Kaufman, 2011) and *Design Things* (MIT press, 2011) and has been chairing the Participatory Design Conference in 2002, the Nordic Design Research Conference in 2005 and the Design Anthropological Futures Conference in 2015.

Johan Redström

Johan Redström is Rector and Professor at Umeå Institute of Design, Umeå University, Sweden. He has previously been Design Director of the Interactive Institute (Sweden) and Associate Research Professor at the Centre for Design Research at the Royal Danish Academy of Fine Arts, School of Architecture, in Copenhagen, Denmark. He received his PhD from the University of Gothenburg in 2001, where he also became Docent in Interaction Design in 2008.

Appendix A:

Part of the invitation for the PERFORM Experiment during the Xlab project, which together with the specified 'Topic of the Day' and 'the Design program' comprised the preparatory designing of the codesign experiment

OBS! Individual Preparations beforehand:

- all participants bring inputs inspired by the topic e.g. 1-3 examples of previous works.
- all participants bring different 'building materials' inspired by the topic...

Agenda:

Approximate Timetable:

- 10:00-10:15 Workshop intro
- 10:15-10:45 Brief stories by all participants of the inputs and material brought along.
- 10:45-11:45 Silent 'brainstorming' by materializing concrete proposals. (Including Coffee, tea, etc)
- 11:45-12:30 Mapping/organizing all proposals + attaching keywords.
- Lunch
- 13:15-14:30 Silent decision of which concept to detail > Manufacturing the chosen concept.
- 14:30-15:00 Individual Video Reflections of experiences (max. 5 min. each)
- 15:00-17:00 Debriefing and Post-Reflections in plenum – started by viewing the results of the groups and the individual Video-reflections. The research questions work as a guideline and connections to the inputs are made.

Workshop criteria / constraints:

- no talking until the Debriefing (only during lunch break – but about other things!)
- we can listen to music/radio.
- no use of pen & paper for writing (only for personal notes and during the part of attaching keywords).
- the organizers provide different basic workshop materials and tools for the different groups, but all participants bring some as well. [See preparations above]
- each participant bring inputs inspired by the topic.
- each participant has 1 'Time-out' during the day to stop, and verbally express e.g. frustrations, ideas of how to proceed, etc.
- during the whole workshop each group has a 'Confession video room' where participants individually can go and record their frustrations, ideas, comments, etc. verbally.
- each group produce one proposal by the end of the day.
- most of the activities of the workshop is documented on video (as a surveillance camera)
- supported by the materials and tools used and produced workshop is initially debriefed by making individual 'Video-Reflections' of what was experienced during the day.

OBS! The language of the workshop will be Danish.