

Design Thinking Beyond Post-its

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Abstract. This case study describes the process of curating creative methods for several types of audiences. Within the case you can find two creative examples to help designers applying an unknown method to go from a problem to a solution by using a ‘design doing’ approach (the original publication consisted of 17 cases). Focussing not so much on thinking like a designer, but especially doing. Because designing is about empathizing, sketching, making, trying and learning while creating. In addition some social interventions were tested via workshops and organised events to see whether it’s important to bring people together involved in these using creative methods for optimal transfer of knowledge.

Keywords: Design, Doing, Creative.

1 Preface

This result of this research contains a collection of 17 cases, in the form of openly shared learning materials. The collection is intended for teachers, students and professionals who work on – often complex – issues within higher education (and beyond), according to the design thinking methodology. The idea is that the examples can help them to arrive at (more) creative solutions together.

The working title of this project was ‘Design Open Research Platform’, abbreviated to DORP, which means village in Dutch, signifying the communal purpose of using methods on a personal level and low key way of interaction.

The Dutch version of the total collection including all the cases and materials can be found on Edusources as e-book [1].

2 Introduction

Design thinking teaches students and professionals to think like a designer. This is very necessary: the challenges they encounter require not only investigative skills, but also design skills and social interaction. However, not every professional or student (or teacher who has to supervise the students) automatically feels creative.

This casestudy debates the use of creative methods and how these methods can optimally be used in daily life by different types of people; e.g. teachers, students, professionals and researchers. The selected 17 methods in the DORP publication were curated to supply a useful collection to help beginners and professionals in the design field. These methods were deliberately written down in such a way to be concise and offer clear step by step instructions for undertaking activities that can help to go further than just sticking post-its. This approach should provide the tools to take creative action, without necessarily knowing in advance what the end result would be. In chapter 6 and 7 the testing of these alterations are explained and discussed.

An important motto that arrived during this entire process was: **design thinking beyond post-its**. Because sticking post-its is a good start, but how do you get (even) further? The DORP research was focussed on providing an answer. This casestudy elaborates on the actual efficiency and practical use of the DORP results as an ongoing process to find the most optimal way to facilitate creative processes.

[2] “*Although it might seem as though frittering away valuable time on sketches and models and simulations will slow work down, prototyping generates results faster*”. – Brown (2020)

3 Challenge

The challenge of this case study is to reflect on the preliminary results from the DORP research. Two main questions that should be answered are:

- (1.) Is collecting examples and distributing them via an electronical platform (Edusources) useful and would the content actually be easily accessible for academic and professional use?
- (2.) Was the curation process, filtering of methods based on metadata en testing them in several settings other than online beneficial to transferring this knowledge to intended users?

The first challenge has been an ongoing process of about 2 years in which 17 design methods were scouted, documented, edited multiple times and moderated for optimal use. The second challenge has been done during several workshops and events to discuss and test the materials.

Chapter 4 explains the division of all collected materials.

Chapter 5 shows two cases as example to indicate the layout of digital and printed versions, and why it was decided to create them in this way.

Chapter 6 explains briefly in what setting the scouted and moderated materials were iterated through several interventions related to optimal use in a social setting.

4 Division of methods

The DORP collection has been divided into three categories with concrete examples of application of creative methods that help you determine how, where and when you can do design thinking. The description below is copied from the DORP publication. On the next page a VENN diagram shows the relation of these 3 categories and 17 cases:

4.1 Empathize

You usually design for others. So, it is important to be able to empathize. By putting yourself in someone else's shoes (literally or not), you understand their needs and challenges better. You gain better insight into what the problem is, for example by observing it, experiencing it yourself or reenacting it. This also gives you a better idea of what kind of solution you can best design and what criteria they must meet. So come out of your bubble!

4.2 Make it tangible

A designer makes things and learns from them. That is why it is important to take the time and... come up with solutions, by making them. Making creative ideas tangible through sketches, lo-, medium- and hi-fidelity prototypes makes it easier to develop concepts, receive feedback and make adjustments together. It makes the abstract concrete and helps you refine your design. Go beyond post-its!

4.3 Try it out

Trying and learning by doing are important principles in design thinking and doing. Every design you make is usually full of assumptions. About what is good, about what works. So don't wait too long to test your assumptions! Because people tend to avoid mistakes - that's ingrained in us. But it's precisely by being open, honest and curious that we discover what does or doesn't work in practice. That's impossible from behind your laptop, so: go outside!

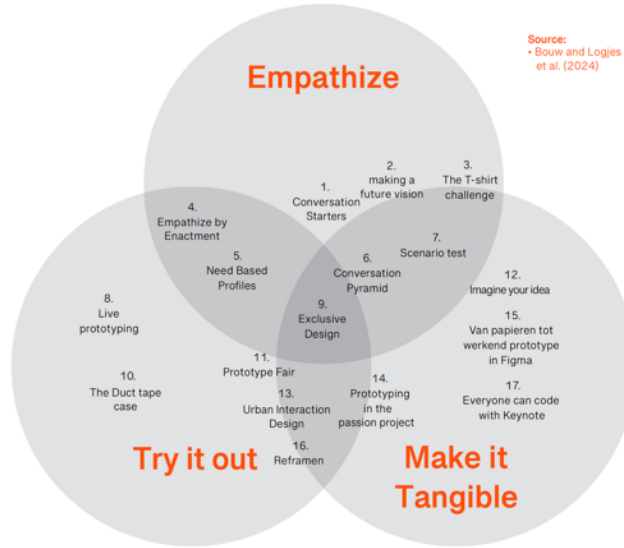


Fig. 1. Venn diagram showing the three categorisations, with mapping of the 17 cases.

5 Selection of 2 cases

Explaining all cases in detail would make this case study very lengthy, therefore only 2 are selected to show the approach of how methods were curated, processed and improved for use in the way we intended, using a step-by-step exemplary description. The two case numbers correspond with the numbers in the above shown Venn diagram.

5.1 Case no. 2: Making a future vision

At the start of a new project or design challenge, it can be difficult to immediately identify what you really value and communicate this in the right way. While rational thinking usually leads to logical and obvious solutions, it is important to also pay attention to the deeper, latent desires and needs.

Challenge: You want to make a start with your team so that you understand each other and the subject better. The trick is not to go into depth right away, but to map out with each other what is possible. It is obvious to simply discuss all this. At the same time, it can take a lot of time and effort to briefly and concisely explain to each other what you mean at this stage. In addition, you may not immediately know what you really find important. Moreover: if you only think rationally, you usually come up with logical and obvious solutions, while you would rather bring out the deeper wishes and needs. Because that is, after all, what really affects people (latent needs).

Solution: Then it is a good idea to start working together creatively on creating future scenarios. An activity that can be classified under the term ‘generative design’; making something, arousing curiosity, looking for solutions and telling stories. Creating visions of the future may seem difficult, but with some simple tools you can get started very quickly. In this case, a group of participants chose images that inspired them from a number of cards that were spread across the table. They each placed these on a large sheet to tell their own story. Here they could write, draw and/or tell what their ideal future scenario entailed. [3][4][5][6][7]. Watch the video on YouTube to understand how this works [8].

Step 1: Decide in advance what you want the group to think about. Present this, and check during the session whether you have come up with a good direction. If necessary, adjust the focus a bit, based on an initial conversation or discussion.

Step 2: Give everyone 20 minutes to create their own vision ‘collage’, using the cards and craft supplies spread across the table. Walk around to answer any questions or ambiguities, and provide support where needed.

Step 3: Let everyone present their own vision of the future. Then start a conversation, with a link back to the previously formulated main question.



Fig. 2. Visual of participants making a future vision with more details of the method on the left.

Variation: Give the assignment a creative twist and allow participants to create their own unique card set by cutting out their favourite images from magazines.

Tips: Capture your creative moments! Take a picture of your work or collage as soon as it is finished. This creates the opportunity to reflect on it later, or even build on it. Also ask around if it is okay to share the results later anonymously.

Success factor: “By choosing a clear topic in advance, laying out all the materials, the participants can work independently and let their creativity run wild. A simple way to organize co-creation. It always works” – Ruben Logjes



Fig. 3. Steps of the process; initial focus, making the collage, and discussing future visions.

SHOWCASE: TOEKOMSTVISIE MAKEN

CATEGORIE: ENVISIONING, STORYTELLING **ACTIVITEIT:** COLLAGES MAKEN, TEKENEN, DISCUSSIËREN **DOEL:** GEDACHTES VISUALISEREN, GESPREK OP GANG BRENGEN **TIJDSDUUR:** 1/ 2 UUR (MET KORTE VOORBEREIDINGEN) **TAGS:** LATENTE BEHOEFTE, VERHALEN VERTELLEN, COLLAGES MAKEN, TOEKOMSTVISIE

Toekomstvisie maken

Tijdens een workshop zijn een groep participanten samen aan de slag gegaan om via een creatieve manier te achterhalen hoe ze netal en cultuur met elkaar kunnen versterken, als het gaat om het zorgvuldig reguleren van de bezoekenbeleving, en welke rol service design daarin kan spelen. Hierin namen ze ieder hun eigen rol (ondernemer/ eigenaar of klant/ bezoeker/ bewoner) om hun ideale (middag bij het Oudorpjeplein te visualiseren. Dit deden zij door afbeeldingen te kiezen die hen inspireerden, uit een selectie kaarten die over de tafel verspreid lagen. Deze plaatsten ze een voor een op een groot vel om te vertellen naar hun eigen verhaal. Hier kon bij geschreven, getekend en/of verteld worden wat hun ideale toekomstvisie inhoudt.

Tijdens het presenteren van een idee, kan het lastig zijn direct te identificeren wat je werkelijk belangrijk vindt, en om dit op de juiste manier over te brengen. Hoewel rationeel denken doorgaans leidt tot logische en voor de hand liggende oplossingen, is het belangrijk om ook aandacht te schenken aan de diepere, latent aanwezige verlangens en behoeften. Het is juist dit niveau van overweging dat daadwerkelijk resonant met mensen en een diepere impact heeft. Dit type activiteit wordt toegepast tijdens co-creatie sessies en staat bekend als 'generatief ontwerpen'. Generatief onderzoek wordt gebruikt om latente behoeften naar boven te brengen en is gedreven door nieuwsgierigheid en een verlangen om nieuwe mogelijkheden te verkennen. Het doel van generatief ontwerpen is niet alleen om specifieke problemen op te lossen, maar ook om nieuwe ideeën te genereren en creativiteit te stimuleren. Het maken van een toekomstvisie kan je hierbij helpen; dit lijkt misschien lastig, maar met wat handige tools kan het heel eenvoudig zijn.



Benodigdheden

- Voor iedere deelnemer een blanco papier (A3 of groter)
- Pennen, lijn/ punt, stiften
- Kaartenset (diese zijn online te koop)

Toekomstscenario's

AL DE WERK IS TE ZIEN HOE DEELNEEMERS AAN DE SLAG GINGEN MET DE TOEKOMSTSCENARIO'S

Stappen & tips voor 'goede visies en verhalen'

Stap 1.



Bepaal vooraf waar je de groep over wilt laten nadenken. Presenteer dit, en controleer tijdens de sessie of je een goede richting hebt bedacht. Pas eventueel de focus wat aan, naar aanleiding van een eerste gesprek of discussie.

Stap 2.



Geef iedereen 20 minuten de tijd om een eigen visie bord te maken, aan de hand van de kaarten en knutselspullen die verspreid liggen over de tafel. Loop rond om eventuele vragen of onduidelijkheden op te vangen, en ondersteun waar nodig.

Stap 3.



Laat iedereen zijn of haar eigen toekomstvisie presenteren. Start vervolgens een gesprek, met een terugkoppeling naar je voorheen geformuleerde hoofdvraag.

Variatie

Geef de opdracht een creatieve draai en stel de deelnemers in staat hun eigen unieke kaartenset te maken door hun favoriete afbeeldingen uit tijdschriften te knippen.

Tips

Leg julle creatieve momenten vast! Maak een foto van je werk of collage zodra het klaar is. Zo creëer je de mogelijkheid om later te reflecteren, of er zelfs op voort te bouwen. Vraag ook even rond of het oké is om de resultaten later geanonimeerd te delen.

Succesfactor?

"Door van tevoren een duidelijk onderwerp te kiezen, alle materialen alvast neer te leggen, kunnen de deelnemers zelfstandig aan de slag en hun creativiteit laten gaan. Een eenvoudige manier om co-creatie te organiseren. Het werkt eigenlijk altijd!"

- Ruben Logjes

Bronnen

Neufels, P. (2015). Verschuiven: 100 toekomstplannen die de toekomst van Nederland veranderen. Amsterdam: Uitgeverij De Persgroep.

Deze showcase is met zorg gemaakt, bewerkt en gepubliceerd door DORP en is bedoeld om open te stellen onder creatieve commons. Het is vrij te verspreiden en te kopiëren. Het is niet toegestaan de inhoud te kopiëren of te verspreiden.





Fig. 4. Visual of printed version (double sided A4), and same layout of the digital variant.

5.2 Case no. 5: Need Based Profiles

Your target group probably consists of several different types of users who, on average, may seem quite similar, but can still differ considerably. Need Based Profiles are a great tool for this purpose. The most important (and difficult) thing is to come up with a good name for a certain segment.

Challenge: The challenge is to process the insights from your user research or interviews in an easy to understand summary and make the profiles visually attractive, so that others understand who it concerns and what they experience.

Solution: By looking at similarities from your research, you can determine several 'profiles'. The Need Based Profile may seem like a Persona, but it is slightly different. The nice thing is that you focus more on needs and special character traits, rather than trying to create a profile with demographics (age, gender, profession, income). These are often very generic and less useful. These types of profiles help you to bring out the 'nice' and unique characteristics, needs and wishes. You can also display the profiles very well schematically next to each other, so that you can clearly see how they are positioned in relation to each other and how large those segments are. [9][10][11][12]

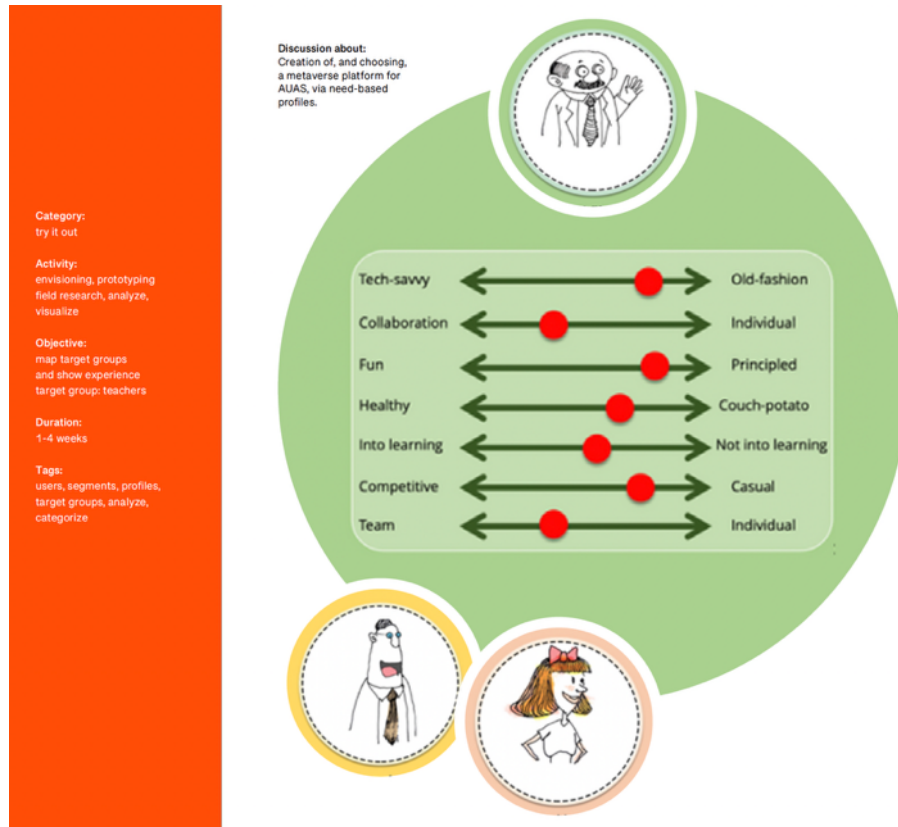


Fig. 5. Visual of Need Based Profile characteristics and more details of the method on the left.

Step 1: Do research; observations, interviews, or use existing results. Brainstorm with your team (or alone) to group the most important insights. Divide the insights so that you can make a realistic assessment of the type of people you are dealing with.

Step 2: Choose a good and funny name for the profiles (no first name + last name or other standard demographics!).

Step 3: Focus on the needs, and describe them clearly. You can visually show character traits or behavioural characteristics by indicating extremes with a scale. This will quickly show you how profiles differ. Brainstorm these characteristics first, and do not copy a standard list.

Success factor: “Be critical of the elaboration of the profiles. If it is done too generally, then it is not much of use and it takes a lot of time. In addition, it can be difficult to work everything out visually, but this helps best to explain the insights and conclusions to others in the form of profiles.” – Ruben Logjes

SHOWCASE: NEED BASED PROFILES

CATEGORY: ENVISIONING, PROTOTYPING ACTIVITEIT: FIELD RESEARCH, ANALYSEREN, VISUALISEREN DOEL: DOELGROEPEN IN KAART BRENGEN EN BELEVING LATEN ZIEN DOELGROEP: DOCENTEN TIJDSDUUR: 1/4 WEKEN TAGS: GEBRUIKERS, USERS, SEGMENTEN, PROFILEN, DOELGROEPEN, ANALYSEREN, CATEGORISEREN

Need Based Profiles

Je doelgroep bestaat waarschijnlijk uit meerdere verschillende type gebruikers die gemiddeld gezien misschien aardig op elkaar lijken, maar toch onderling behoorlijke verschillen hebben. Het belangrijkste (en lastigste) is een goede naam te verzinnen voor een bepaald segment. Het is hierbij de uitdaging om de inzichten van je gebruikersonderzoek of interviews op een leuke manier te verwerken en visueel aantrekkelijk te maken, zodat anderen begrijpen om wie het gaat en wat ze belevan.

De oplossing

Door te gaan kijken naar overeenkomsten uit je onderzoek, kan je meestal een aantal 'profielen' bepalen. De Need Based Profile lijkt misschien op een Persona, maar is toch niet iets anders. Het fijne is dat je je meer richt op behoeften en bijbehorende karakteristieken, dan dat je probeert met demografische gegevens (leeftijd, geslacht, beroep, inkomen) een profiel te maken. Die zijn vaak erg generiek en minder goed bruikbaar. Dit soort profielen helpen je om de 'leuke' en unieke eigenschappen, behoeften en wensen naar boven te brengen. De profielen kan je daarnaast heel goed samenstelt naar elkaar tonen, zodat je goed ziet hoe ze zich ten opzichte van elkaar bevinden en hoe groot die segmenten zijn.

Stappen voor need based profiles

1. Doe onderzoek; observaties, interviews, of gebruik bestaande resultaten. Ga brainstormen met je team (of alleen) om de belangrijkste inzichten te groeperen. Verdeel de inzichten zodat je een realistische inschatting kunt maken van de type mensen voor je mee te maken hebt.
2. Kies een goede en grappige benaming voor de profielen (geen voornaam + achternaam!).
3. Richt je op de behoeften, en beschrijf die duidelijk. Je kunt karakteristieken van gedragingen visueel inzichtelijk maken door ultiem met een schaalverdeling aan te geven. Hiermee zie je snel hoe profielen verschillen. Brainstorm eerst over deze eigenschappen, en neem niet om een standaardtype over.

Succesfactor?

Wissen kritiek op de uitwerking van de profielen en scenario's. Als het te algemeen is gedaan, dan heb je er niet zoveel aan en het valt vooral veel tijd. Daarnaast kan het lastig zijn om alles visueel uit te werken, maar dit helpt het beste om de inzichten en conclusies in de vorm van profielen en scenario's aan anderen uit te leggen.

- Ruben Lodder

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Fig. 6. Visual of printed version (double sided A4), and same layout of the digital variant.

6 Additional ways of using the cases

One of the main challenges in this project was to find out whether other ways of interacting with methods by possible end users like teachers, students, researchers, and professionals would be feasible and preferable. Our approach was to test different settings in which people could get involved in a more social and interactive manner, thus activating the content itself in a ‘practice what you preach’ way. Related to the physical interaction also we realised that filtering and curating the content is needed to help people understand how cases should be applied and provide an overview ‘in a glance’.

During this project, at so called ‘DORP days’, we invited fellow teachers from different applied science universities in the Netherlands and professionals from all kinds of backgrounds. During these sessions we tried to convey the purpose of the cases, and trigger participants to respond to our ideas of curating the content and the intended use of the material. The first two DORP days were more traditional in setup to ‘Show and Share’ content. After these two gatherings it was decided to go on step further, to iterate on the gathered feedback and become creative ourselves.

Parallel to the DORP days several workshops were facilitated with small groups of design professionals who guided us to use a more creative way of presenting our curated set of cases and warned us to not merely share ‘yet another toolbox online’, because that would probably not do the trick. This confirmed our own assumptions to try a different approach. Some of the comments and feedback from these workshops were:

“people are tired of receiving lots of digital content, you need specific moments to reach your audience” and “why isn’t DORP more physical itself”, or “how do you filter all the content when looking for a method with a specific goal – filtering is usually the issue”.

This resulted in two new directions for curating, namely the need for a practical filtering of methods and a more physical way of presenting the cases.

The iteration for the filtering was done by creating a hierarchy of the 17 cases and finding out whether subsets of methods could be created via variables to indicate how difficult or easy a method is, simple or complex, if it would take a long time to prepare or execute, and if the outcome would be of low or high resolution. See image below where plotting of all the cases on 5 levels was done, after which it was decided to go for only 4 variables to make it more compact and understandable.

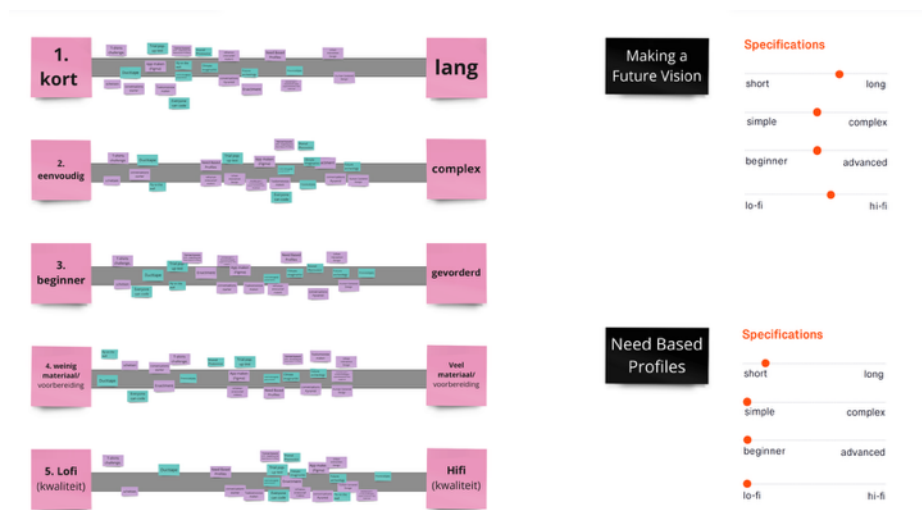


Fig. 7. Iteration of variables for the cases and filtering examples of the two mentioned methods from chapter 4, and what this would look like in the printed version or online.

The second iteration was related to involve participants in our study in a more interactive way. Therefore, at ‘DORP day three’ an exhibition was created of all materials letting participants give feedback, and use dot voting to indicate whether they liked the cases itself or not, and more importantly determine whether they liked the presentation of actual case materials and printed versions of cases in different sizes. Some of the important feedback of this event was the following (quotes and summaries from responses of the target audience like teachers, researchers and design professionals):

- Filtering of the variables wasn’t always clear and mentioned by several target groups.
- Participants were doubting whether curating more cases would be possible and how to do this on a bigger scale and how people would be able to access all the content.

- A suggestion was to involve students to help curate the content. In that way they learn about the methods simultaneously and make the digital and physical content ‘ready to be used’ by others at the same time.
- “Who is the owner of this collection, or which key stakeholders will take this a step further?”
- “It’s a great way [The exhibition] to discuss with others, be inspired by the materials, and understand each other on deeper levels than you would normally do (this would not happen with digital content).”
- Some people liked the variables and visualisation style, others not.
- The step-by-step guide was appreciated a lot.
- “It’s very nice to have a moment to reflect together.”

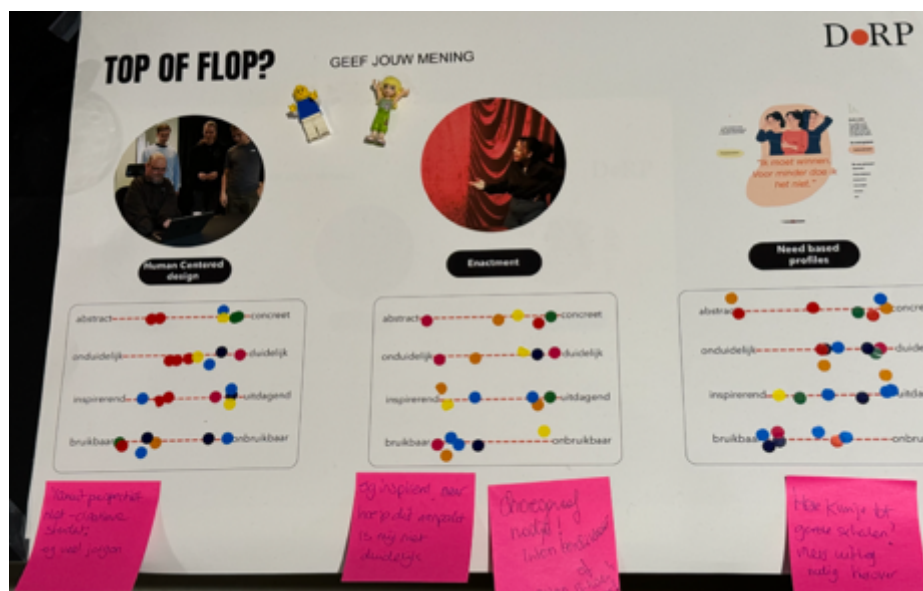


Fig. 8. One of the feedback forms with dot-voting and comments during DORP day 3.

As can be seen in Figure 9 several types of prints were tested of the before shown templates of materials and methods. All of them were printed on A4 size, but also on bigger foamboard panels, including the actual materials used. This way the setting became more like an exhibition.

Besides receiving both positive feedback and comments, the vibrant atmosphere was most positive of people sharing insights and bringing new ideas to the table themselves.

The setup of this exhibition was created in such a way that it could easily fit in one car and therefore be transported to different locations if faculties or companies would be interested to host one of these ‘show and share’ events for internal or external use.



Fig. 9. Exhibition of materials with printed versions (double sided A4), large foamboards, and an ‘introductory’ panel to explain the general purpose of the exhibition. QR codes on the printed version of the cases could be used to direct people to the digital versions.

7 Discussion

As with most online toolkits, whether it be a representation of creative methods online, as small cards or in other forms, generally the makers expect people to be experienced designers and know how to use them.

During the DORP project the intention was to move away from this approach and experiment with several ways of visualising, promoting and curating collected methods and materials, based on assumptions that the current way is not always inspiring or sufficiently continuing the effects of this knowledge in a cyclical way.

Through many iterations and discussions, the final solution is a hybrid approach with both the online catalogue and the printed materials for use in private or group settings, and an exhibition format on larger poster size prints and cardboard for showcasing and serving as conversation starter. These non-digital types of presentation have been used in a few workshop settings with the target audience (designers, teachers and researchers, but not with students). Scaling up of the catalogue and knowing if this hybrid approach will be successful might also depend on departments within education willing to use these methods, or even companies that would be interested to host these kind of exhibitions for instance in their offices or exhibitions spaces.

At the moment it can not be concluded yet if the content of the DORP cases can work as ‘standalone’ database or prints for professionals, lecturers, researchers or especially students. During all kinds of workshop settings, no students were present. All

the cases have been scouted however based on the efficiency and ease of use in classrooms or workshops. This was the curation based on the knowledge of involved researcher related to their own ‘best practices’ developed through years of experience. The most positive response was the fact that experienced participants have shown their interest and supplied us with many tips and suggestions for improvement

Also finding more ways of activating people to contribute to the database and curating the content is an important aspect to take in consideration. A nice way could be to involve students to help with this process and make it part of some courses in universities or other educational institutions.

8 Conclusion

The activating way of curating the methods and materials have proven to be successful. Participants of the ‘DORP days’ were enthusiastic and took printed versions with them and scanned the QR codes for later use in their professional work as teacher or designer.

Discussing and sharing information, preferably in a live setting improves and promotes the most important aspect of these methods, namely transferring knowledge, trying out different approaches and asking others for help.

However, curating all the content seems to be one of the most mentioned bottlenecks, but perhaps including students in this process can make it more integrated and dynamic, involving educational institutions in many ways (students, teachers, researchers), especially when combining such a collection like DORP in real-life project together with professionals and design challenges.

In a digital age, with an overkill of content and toolkits, people are looking for ways to step away from their laptop and socially interact with like-minded people.

In other situations, if people are not acquainted with these types of materials, the simple instructions should be sufficient to apply them, and filtering with variables should make it clear what the purpose of each method is. Additionally, if methods are proposed by someone that is more skilled, and who knows of the existence of this content, then others would be greatly helped by this approach if forwarded or stumbled upon.

Final consideration is always the start of such a movement and how both people and content can stay activated. There is enough reason to believe that this direction is very promising to be further developed.

Acknowledgments. This research was funded and developed as a project of the Centre of Expertise for Creative Innovation, as part of the incentive scheme for open and online education: pillar Open learning material. All cases can be found and downloaded for free via the DORP community on Edusources

Disclosure of Interests. The authors have no competing interests to declare that are relevant to the content of this article.

Initiators: Lectorship Design Thinking & Lectorship Creative Media for Social Change

Project leader: Inholland University of Applied Sciences

Made possible by: Esther Bouw, Pearl Fritsche, Guido Stomp, Mark Jacobs, Ruben Logjes, Maaïke van Cruchten, Annika Kuijper, Roos Verleg, Tamara Witschge, Dirk Reynders, Rob Mulder, Karel Koch, Marjolijn Ruyg, Toska van der Heiden, Suzanne Lustenhouwer, Roos Alink, Ria Jacobi, Ida Niamat, Marius van Vlijmen, Richard Visscher, Marcella Pottho, Loes van der Tuuk ... and all members of the DORP community

CREATIVE COMMONS The showcases have been carefully scouted, edited and published by DORP and are intended to be shared openly under creative commons. Do you have any questions or suggestions about the content? Please let us know via dorp@coeci.nl

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The Dutch e-pub version had been published at Amsterdam, May 2024: ISBN: 9789077812624

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