

Training on User Research

(in COVID-19 times)

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INTRODUCTION

TU Delft team at DESIGNSCAPES

Human-Centered Design / Industrial Design Engineering



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11:30 **Welcome! Intro to the webinar and agenda of the session**

11:40 **Check in moment**

12:00 **User research (in COVID-19 times)**

1. Introduction to user research
 - 1.1. What is user research?
 - 1.2. Why do we need user research?
 - 1.3. The role of empathy
 - 1.4. When should we conduct user research?
 - 1.5. Tools & methods
 - 1.6. The process
2. User research in COVID-19 times
 - 2.1. Research Through Design
 - 2.1.1. Example of practice
 - 2.2. Generative research
 - 2.2.1. Example of practice
3. Bonus: Tips & external resources

12:20 **Q&A**

12:30 **Closing**





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CHECK IN MOMENT



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USER RESEARCH

(in COVID-19 times)



SOME ONLINE INTERACTION REMARKS:

Feel free to stop me and ask questions or express your own experience at any point...

You can also pose questions or make remarks on the chat, I will keep an eye on them...

Whenever you don't want to speak, keep your microphone muted for the best experience for all ;)

INTRODUCTION TO USER RESEARCH

WHAT IS USER RESEARCH?

It is a set of methods and activities that we use to **investigate human behaviour:**



Understand how **the people we are designing for THINK** and **FEEL**,

why they **ACT** the way they do,

what are their **NEEDS** and **WANTS**,

MOTIVATIONS,

FRUSTRATIONS...



WHY DO WE NEED USER RESEARCH?

We design for (us and) others; we are (sometimes) not the user!



Not every choice is co-created → In those instances: We have to **avoid projecting our own perspective** (our needs, wants, motivations, frustrations, judgements, etc.) in the design of the solution.

- If you **understand your users**... you can make designs that are **relevant** for them.
- If you don't have a clear understanding of your users... you have **no way of knowing whether your design will be relevant, or easy, or nice to use, etc.**

Make sure that your solution will work in the real world.



Empathy is the building block of user research.

*“Empathy is **the capacity to step into other people’s shoes, to understand their lives, and start to solve problems from their perspectives.** Human-centered design is premised on empathy, on the idea that the people you’re designing for are your roadmap to innovative solutions. All you have to do is empathize, understand them, and bring them along with you in the design process.”*

Emi Kolawole, from IDEO’s designkit.org



We want to exercise empathy, **the intentional exercise of understanding the user**, to consider them as much as possible in our design choices. User research is the set of tools to help us in this.

WHEN SHOULD WE CONDUCT USER RESEARCH?

It is an ongoing process! It is meaningful at all stages of designing, developing, and refining a solution.

- **Early on** to understand who we are designing for (or with) and that the direction of the project is relevant for the user
- **Through the development process** to validate ideas and iterations and ensure the design continues being relevant.

There is not such a thing as too much user research!

“Talk to your users about how they perceive your design and how they could imagine using it, or involve them directly in your design process, to ensure that you are still on the right track.”¹

[1] Mortensen D. H.(2020). User Research: What It Is and Why You Should Do it [Blog post]. Retrieved from <https://www.interaction-design.org/literature/article/user-research-what-it-is-and-why-you-should-do-it>

QUALITATIVE:

With these tools and methods we aim at exploring the context of the user or of a group of users, and getting a deep understanding of their everyday life and/or a specific experience.

You can find most of these
in the DESIGNSCAPES
Toolbox!

(Check out the recording of the
Training on Tools on the FB Group)



A selection...

- Interviews (contextual, individual)
- Personas
- Scenarios/ Storyboards
- Cultural probes
- Focus groups
- [Observational research](#) (ethnography)
- [Task analysis](#)
- Journey mapping
- [Usability testing](#) (Guerrilla testing, paper prototype testing, etc.)
- [Card sorting](#)

QUANTITATIVE

With these tools and methods we aim at measuring in a quantifiable way the experience of the user or a group of users. When using these methods it is valuable to include a higher numbers of users, in order to create reliable statistical data.

A selection...

- Surveys and questionnaires
- Eye tracking
- A/B testing

1. Reflect on **your intention behind doing user research**

→ What is the problem you are trying to solve?/ your end goal?/ design challenge?

2. Who are **your users and what is **their context** and constraints?**



3. What is your **research question**?

- Understand behaviours | E.g. “Understand how people chose between X and Z when Y”
- Gather information to design | E.g. “Collect feedback from the users on how they would prefer this element of my design to be updated”
- Assess or test a design choice/feature | E.g. “Test X part or functionality of the current design of my product”
- Test a hypothesis | E.g. “I believe people will use this in X way for Z purpose” / “I believe people are not interested in using Y”

4. Select the appropriate user research **method**

5. Analyse and make sense out of the **collected insights**

→ Take note of insights (such as important statements or quotes from an interview or session with users)

→ Cluster them/ find patterns

→ Map insights by, for example, using a (service) design tool, like a *Customer Journey* or an *Experience Map*



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USER RESEARCH IN COVID-19 TIMES

USER RESEARCH IN COVID-19 TIMES

How to tackle User Research **when we cannot meet with people, organise groups of discussion or creative workshops in person?**

Design methods that can help us conduct user research or testing activities within today's limitations:

 Research Through Design (RTD)

 Generative Research

What is Research Through Design (RTD)?

Designing and **building something** (a prototype or artifact) that acts as a ‘product’, but is **primarily aimed at generating knowledge** (in the case of User Research, at gaining a better understanding of the user), instead of the objective being to propose a solution (to be tested).

For example, the ‘product’ can present to the user a provocative idea or a new interaction, that has been created just to spark discussion or uncover new thoughts in the user.

Apart from the knowledge we can generate through this ‘product’, the process itself of producing something will already create new insights.

Why is it meaningful in COVID-19 times?

When the communication with the user is limited, producing an artifact that can be **delivered online or physically and used by the user in their own time** (or during on online observation) and within their own context, can facilitate the **collection of deeper insights** - in comparison with other approaches, such as online surveys, that although valuable, may only help us collect more superficial knowledge from the user.

Or simply be a good alternative to a type of research activity that cannot happen anymore (e.g. a creative workshop with the user group).

Tools for conducting RTD in COVID-19 times:

Quick online prototyping

- Apps → [Proto.io](https://proto.io)
- Websites → [Wix](https://wix.com)
- PowerPoint / Keynote (highly flexible! - e.g. prototyping apps and websites)
- PDF (can be printed home [paper prototypes])

Read more on:

<https://www.interaction-design.org/literature/book/the-encyclopedia-of-human-computer-interaction-2nd-ed/research-through-design>





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EXAMPLE OF PRACTICE

Empowering children as positive change makers

Samira Miccolis (Master thesis 'Design for Interaction' TU Delft)

- ***User research with children in an urban civic center in Italy during lockdown***
- **Activity for children** in the format of an **app** (developed from scratch in a 1-2 weeks), to make them **create a puppet that would represent their powers**



The designer was not interested (only) in the outcome, but in **what she could learn about the children by observing their process**; the app facilitated this process (uncovered these insights).

Empowering children as positive change makers

Samira Miccolis (Master thesis 'Design for Interaction' TU Delft)

- As a result, Samira gained a **better understanding of the limitations and strengths of children** in regards to identifying and communicating societal challenges and their own view of their ability to have an impact in these issues.
- This activity **sparked a new approach for the urban civic center**: Inspired by a first online session with the children after lockdown lead by Samira's research with the app, the civic center has developed an online program of activities and continued engaging with the local children in online forums and sessions.





We said that to change the world you don't need super powers but only your powers! So let's find out together ... what are your powers?



MY POWERS

what are your powers? what can you do very well, well, well? what do you like doing for yourself and for others? what are your qualities?



Try to think about it for a few minutes



Now put the phone down ... and run to get the creative material



Create your avatar that has all your powers.

GIVE ME A LITTLE HELP



DONE!?

Samira Miccolis

Source:

Miccolis, S. (2020). *Empowering children as positive change makers*. TU Delft: unpublished master thesis.

what powers do children recognize themselves?



Source:
Miccolis, S. (2020). *Empowering children as positive change makers*.
TU Delft: unpublished master thesis.

Empowering children as positive change makers

Do children recognize themselves powers to take action?

How do children identify pro-social challenges relevant for them?

How do children intuitively take action toward them?

how were explored?

Activity 1:
Which powers do you have to change the world?

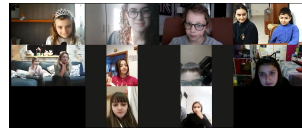
Activity 2:
What can you invent to make the world better?

Activity 3:
Tell me how you did it!
unveiling children intuitive creative process

through:



individual use of the app as digital facilitator for open ended hands on activities with scaffolds



4 group session with children to introduce activities, share work in progress and

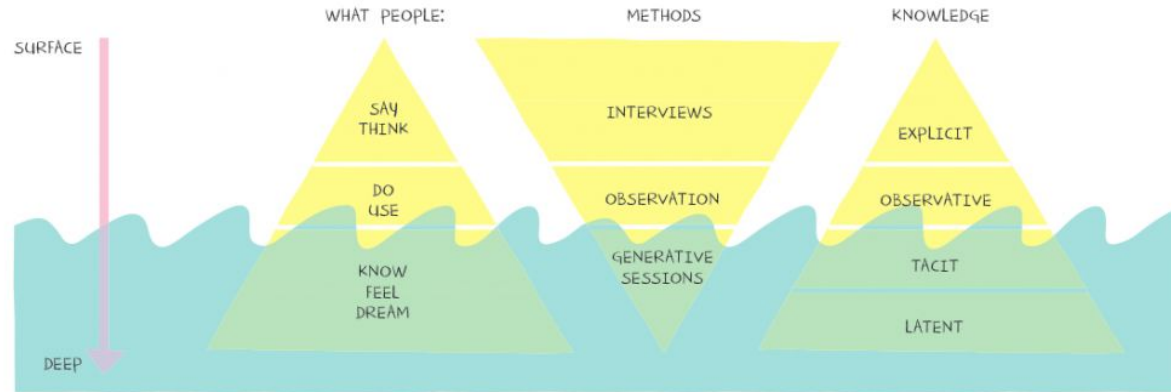


10 interview "Tell me how you did it!" to let children share the process they followed, their feelings throughout it, and their expectations for next steps

Source:
Miccolis, S. (2020). *Empowering children as positive change makers*. TU Delft: unpublished master thesis.

What is Generative Research?

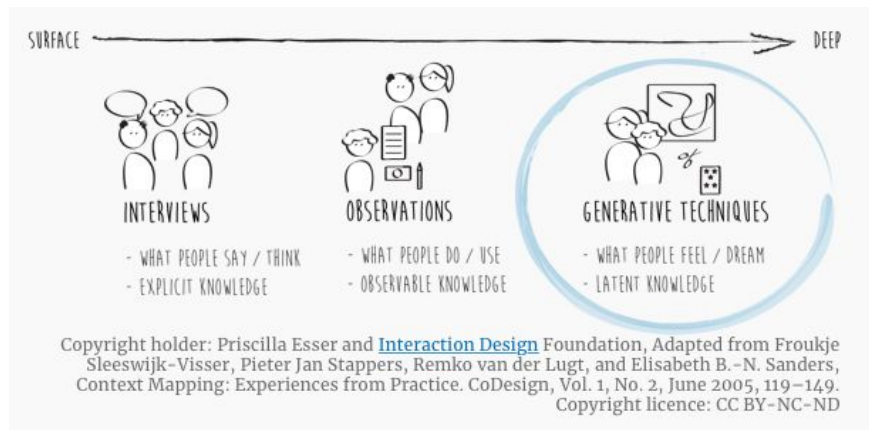
Interviews or focus groups have limitations... often, **what people say and what they do is not completely aligned:**



Source:
Sanders, E. B. N., & Stappers,
P. J. (2012). *Convivial
Toolbox: Generative
Research for the Front End of
Design* [Figure 3.2., p.67]

What is Generative Research?

We want to gain a deep understanding of the user and their context while involving them in our design or development process → Generative research techniques (*let the user make instead of tell*)



Read more on:

<https://www.interaction-design.org/literature/article/probes-for-context-mapping-how-to-design-and-use-them>

Tools for conducting Generative Research in COVID-19 times:

- [Mindmap](#)
- [Photojournal](#)
- Booklet with [“making” exercises](#) (e.g. map and draw their commuting routine)
 - PDF Booklet (the user can print it home)
 - Paper Booklet (can be sent to the users by post)
 - Online shared documents (e.g. Google Docs, Slides, etc.)



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EXAMPLE OF PRACTICE

Engaging citizens in smart city dialogue

Haoyung Chang (Master thesis 'Design for Interaction' TU Delft)

Research questions:

- **What is the current situation of how citizens (migrants) engage in public issues in Amsterdam?**
- **In the field of Smart City, what topics are more relevant to the citizens and why?**



Engaging citizens in smart city dialogue

Generative research tools:

- **Tool 1 - Sensitizing booklet** (developed from RQ2)
 - The user receives it home, has some time to fill it in, and you receive the outcome afterwards.
Can be easily followed up by a call to discuss their impressions and collect further insights.
- **Tool 2 - Interview** (developed from RQ1)
- **Tool 3 - Travel in Amsterdam**
- **Tool 4 - Amsterdam Times**

Let's talk about smart city!

Day 2

One of a typical weekend day of my life in Amsterdam

Please write down/draw the activities you do on a typical weekend day in Amsterdam on the following timeline. From leaving home till going back home. Please indicate the public spaces, the facilities that you use or the way of transportation etc.

example:



leave home visit park visit library open market back home

leave home back home

Figure 9. Day2 exercise, as an example, shows the activities designed in the sensitizing booklet.

Day 4

Interests in public developments in Amsterdam?

Please select three of the following smart city topics in Amsterdam which you would like to know more about. Write them down on the next page and shortly describe why.

| | | |
|---|------------------------------|---------------------------------|
| intelligent efficient transportation system | sustainable waste management | Smart community services |
| safety first schools | circular power plants | AI-powered fair law enforcement |
| smart water supply network | intelligent hospitate | ubiquitous smart library |

| topics | reasons why I am more interested in these topics |
|----------|--|
| 1. _____ | _____ |
| 2. _____ | _____ |
| 3. _____ | _____ |

Figure 10. Day4 exercise, as another example, shows the activities designed in the sensitizing booklet.

Source:

<https://repository.tudelft.nl/islandora/object/uuid%3Ad708d240-6130-4a70-bf36-5019b525ced7?collection=education>





Figure 11. A picture taken during the session with one of the participant when playing Travel in Amsterdam

Source:
<https://repository.tudelft.nl/islandora/object/uuid%3Ad708d240-6130-4a70-bf36-5019b525ced7?collection=education>



Figure 12. The design of Amsterdam Times. At the right-hand side are the boxes for the participants to fill in.



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BONUS: TIPS & EXTERNAL RESOURCES

TIPS & POINTS OF CAUTION

- ❑ Sensitise your users before a session → especially important when you have to make the most of the time and communication is online.
- ❑ Not everybody is tech-savvy, and technology can always fail you → have a low-tech option B and keep the need for a long-term stable internet connection to a minimum.
- ❑ If you are using an online tool (e.g. Miro) → share beforehand a short explanation or tutorial of use of the online tool.
- ❑ To find users in current times → connect to already existing online communities on the topic, such as Facebook groups or online forums.
- ❑ If possible, choose an user research approach and tools that is “blended” (partly online, partly physical). Think of paper prototypes delivered by mail, etc.

- ★ ONLINE CO-CREATION → Thinking together in a digital space

Miro's "*Remote Facilitation Best Practices*":

<https://www.youtube.com/watch?v=A6sKFTYgciE&feature=youtu.be>

Miro's board corresponding to the call: https://miro.com/app/board/o9J_kuh03Yk=

(screenshots of the board in the following slides)



EXTERNAL RESOURCES

Tools

Organization

- Notion - The all-in-one workspace for your notes, tasks, wikis, and databases.
- Get it together.
- Replace all over the place with ONE place.
- Google Docs - Free Online Documents for Personal Use
- Google Drive - Free Cloud Storage for Personal Use

Live conferencing

- Zoom.us - Video Conferencing, Web Conferencing, Webinars, Screen Sharing
- GoToMeeting.com - Video Conferencing Software | Web Conference | GoToMeeting

Passive Communication

- Twist - Twist: Clear & Organized Team Communication
- Stack.com - Where work happens
- Loom - Loom | Video recording simplified.
- Microsoft Teams - Microsoft Teams: Grouped, Online, Meeting and Transcribed

Visual Communication

- Mural.co - Sign up
- Mural.co - Online Brainstorming, Synthesis and Collaboration - MURAL
- Digital Outline - Digital Outline: Whiteboard App
- Google Slides - Google Slides: Free Online Presentations for Personal Use

Hardware

- Logitech C920 HD Pro Webcam for Amazon, Full HD Webcam for Computer & Webcam
- Base Note - Base Note: Capturing Progress, The Software, Amazon.de: eBook

Inperson to Remote

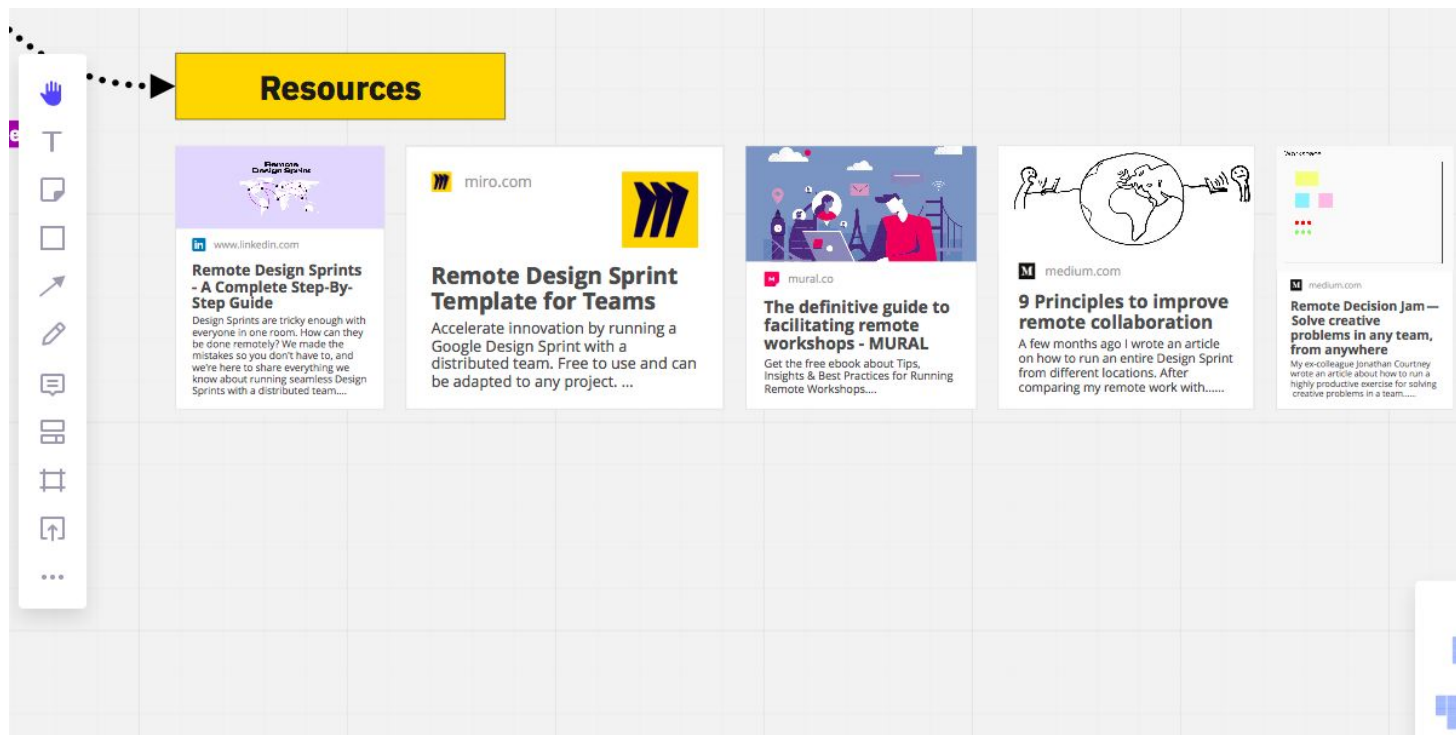
- MURAL Scan - MURAL Scan
- Solutions for Collaboration Teams | Mureka

Scheduling

- World Clock & Time Converter

Source: https://miro.com/app/board/o9J_kuh03Yk=/





Resources

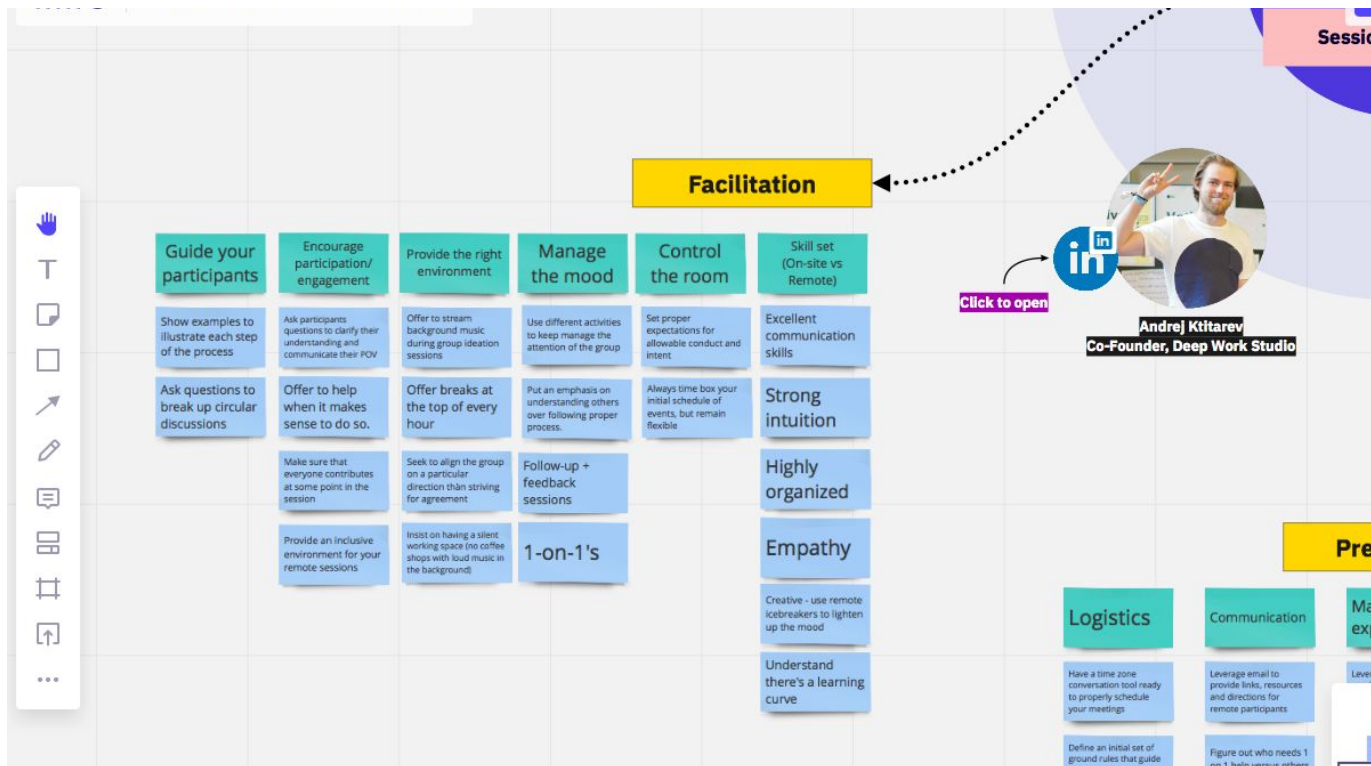
- Remote Design Sprints - A Complete Step-By-Step Guide**
www.linkedin.com
Design Sprints are tricky enough with everyone in one room. How can they be done remotely? We made the mistakes so you don't have to, and we're here to share everything we know about running seamless Design Sprints with a distributed team...
- Remote Design Sprint Template for Teams**
miro.com
Accelerate innovation by running a Google Design Sprint with a distributed team. Free to use and can be adapted to any project. ...
- The definitive guide to facilitating remote workshops - MURAL**
mural.co
Get the free ebook about Tips, Insights & Best Practices for Running Remote Workshops...
- 9 Principles to improve remote collaboration**
medium.com
A few months ago I wrote an article on how to run an entire Design Sprint from different locations. After comparing my remote work with.....
- Remote Decision Jam – Solve creative problems in any team, from anywhere**
medium.com
My ex-colleague Jonathan Courtney wrote an article about how to run a highly productive exercise for solving creative problems in a team.....

Source:

[https://miro.com/app/board/o9J_kuh03Yk=/
/](https://miro.com/app/board/o9J_kuh03Yk=/)



EXTERNAL RESOURCES



Source:
https://miro.com/app/board/o9J_kuh03Yk=/





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ANY QUESTIONS?



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THANK YOU!